MARCH 3, 1945

# Railway Age

*Founded in 1856*

IT'S A GREAT NEW DAY FOR RAILROADING

Sec 31

## RAILROAD MEN

### are cautious by nature

Every General Motors Diesel locomotive was purchased and put to work only after the buyer was thoroughly convinced of its comparative dependability, durability and economy. And there are upwards of 1,800 such units in regularly scheduled freight and passenger service throughout the nation. And scores more going into service every month.

GENERAL MOTORS LOCOMOTIVES

★ TO FINAL VICTORY
BUY MORE WAR BONDS

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS CORPORATION • LA GRANGE, ILL.

Library of Congress
MAR 14 1945

# UNIT TRUCK

## RUGGED CONSTRUCTION

THE Vertical Brake Beam Flange extends through the Brake Head, producing a rugged assembly. The hardened Wear Plate protects the Brake Beam for many years of service.

UNIT TRUCK CORPORATION

140 CEDAR STREET NEW YORK, 6, N. Y.


Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 118, No. 9.

# Save Frog Points with this Sturdy Guard Rail

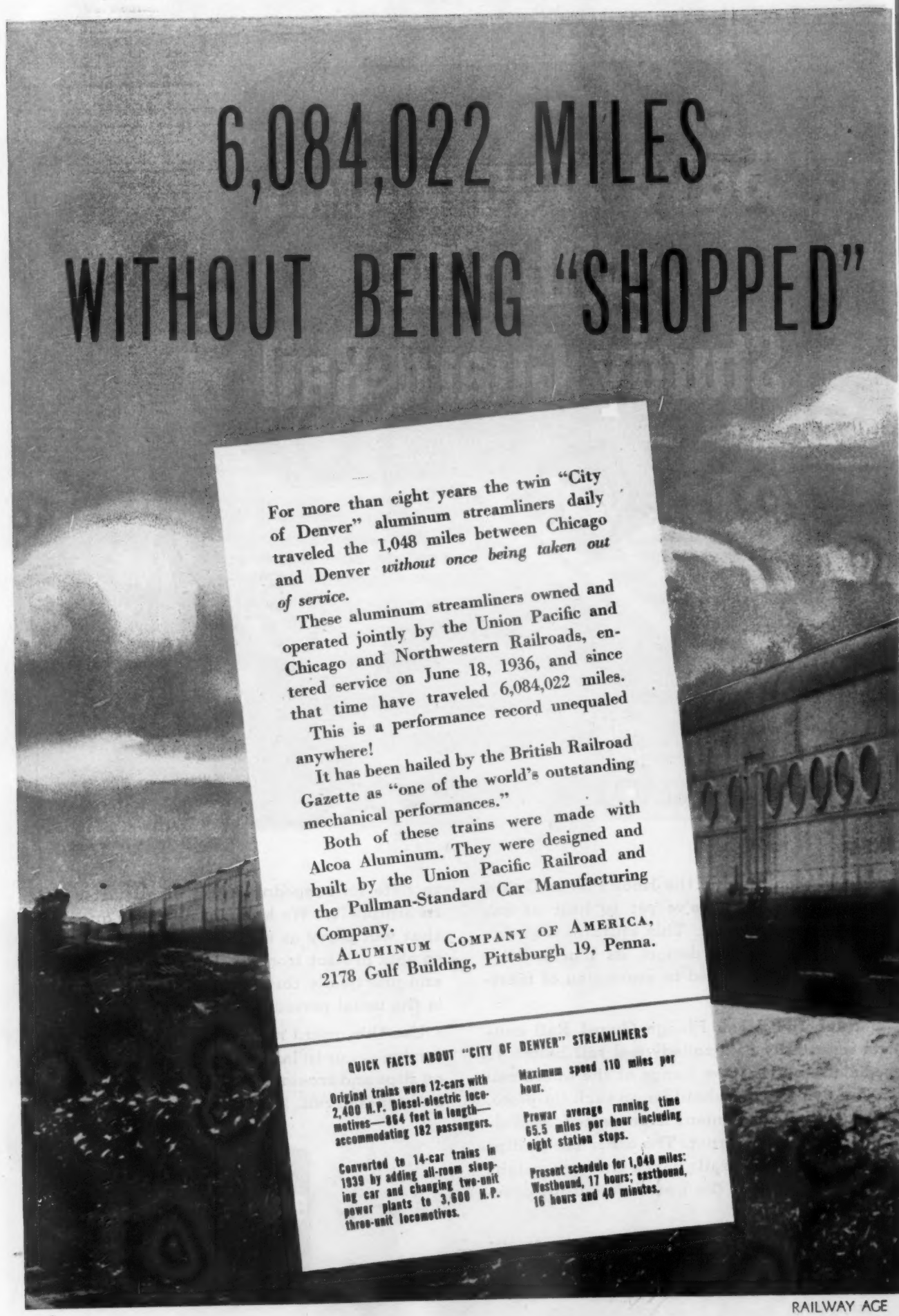
We've been making the Hook Flange Guard Rail for years, and we've yet to hear of one breaking under traffic. This sturdiness is due chiefly to its unique design, its high-quality steel, and the care used in every step of fabrication.

Bethlehem's Hook Flange Guard Rail consists essentially of a rolled-steel rail bolted to special tie-plates. One flange of the guard rail fits snugly against a shoulder on each tie-plate, so that lateral movement is prevented, regardless of heavy side thrust. The other flange dips under the running rail; hence the very weight of the train keeps the guard rail from overturning.

When you look at the assembly, you're apt to note its ruggedness first of all; after that, its simplicity. We know of no other guard rail that will parry as much side thrust; that will so ably protect frog points. It's easy to install, and practically the only maintenance required is the usual periodic inspection.

Use this guard rail in high-speed, main-line service . . . or in large classification yards . . . or on slips and crossovers. It's made for all weights and types of rail, in any length required.

★ ★ ★ BETHLEHEM STEEL ★ ★ ★



# 6,084,022 MILES WITHOUT BEING "SHOPPED"

For more than eight years the twin "City of Denver" aluminum streamliners daily traveled the 1,048 miles between Chicago and Denver *without once being taken out of service.*

These aluminum streamliners owned and operated jointly by the Union Pacific and Chicago and Northwestern Railroads, entered service on June 18, 1936, and since that time have traveled 6,084,022 miles.

This is a performance record unequaled anywhere!

It has been hailed by the British Railroad Gazette as "one of the world's outstanding mechanical performances."

Both of these trains were made with Alcoa Aluminum. They were designed and built by the Union Pacific Railroad and the Pullman-Standard Car Manufacturing Company.

ALUMINUM COMPANY OF AMERICA,
2178 Gulf Building, Pittsburgh 19, Penna.

**QUICK FACTS ABOUT "CITY OF DENVER" STREAMLINERS**

Original trains were 12-cars with 2,400 H.P. Diesel-electric locomotives—864 feet in length—accommodating 182 passengers.

Converted to 14-car trains in 1939 by adding all-room sleeping car and changing two-unit power plants to 3,600 H.P. three-unit locomotives.

Maximum speed 110 miles per hour.

Prewar average running time 65.5 miles per hour including eight station stops.

Present schedule for 1,048 miles: Westbound, 17 hours; eastbound, 16 hours and 40 minutes.

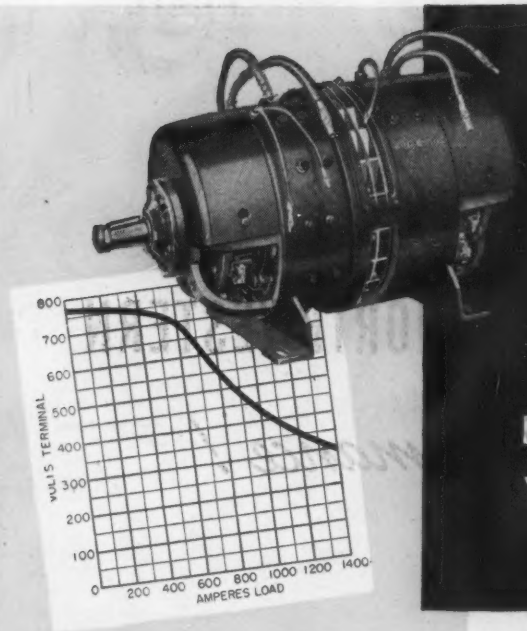
*Aluminum Streamliners*

**OF UNION PACIFIC–CHICAGO & NORTHWESTERN**

*set new record of Performance!*

**ALCOA** FIRST IN **ALUMINUM**

ALCOA ALUMINUM




# 8 plus values

## THESE FEATURES OF ALCO-G. E. DIESEL-ELECTRICS WILL SUPPORT YOUR BID FOR POSTWAR TRAFFIC

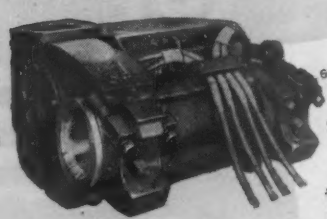
**+1 CONSTANT POWER OUTPUT** is maintained throughout the normal speed range of the locomotive by this specially designed split-pole exciter. It's a simple magnetic circuit which requires no maintenance or adjustment.

●The operating records of railroads, and the statements of the shippers they serve, prove how effectively Alco-G.E. diesel-electrics are helping their users prepare to meet profitably the stiff competition that will come after the war. These units are doing it by slashing locomotive operating expense as much as 35 per cent, and by earning the loyalty of shippers by their fast, clean, and safe switching.

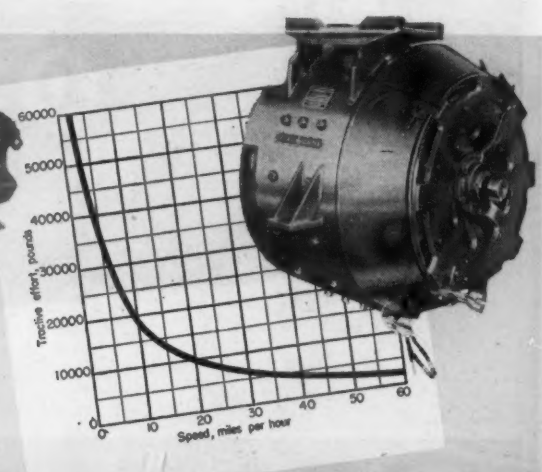
These competitive advantages come from the distinctive features we have developed as a result of our 20 years' experience building diesel-electrics for all types of railroad service. These features, added to the high thermal efficiency of the diesel engine are the reason why six Alco-G.E. diesel-electrics on one road are saving, in fuel alone, each year, more than the cost of one unit; why three units, on another road, have turned in more than 40,000 locomotive-hours without an overhaul.

You can determine the extent of Alco-G.E. savings on your road by having our engineers work with your organization on a motive-power survey. Our recommendations will be impartial—we build all three types of motive power–diesel-electric, electric, and steam.

**+2 LONG EARNING LIFE,** a result of the judicious use of recent metallurgical discoveries and modern methods of fabrication, such as all-welded structure, enables Alco-G.E. diesel-electrics to keep on saving money long after they have paid for themselves.

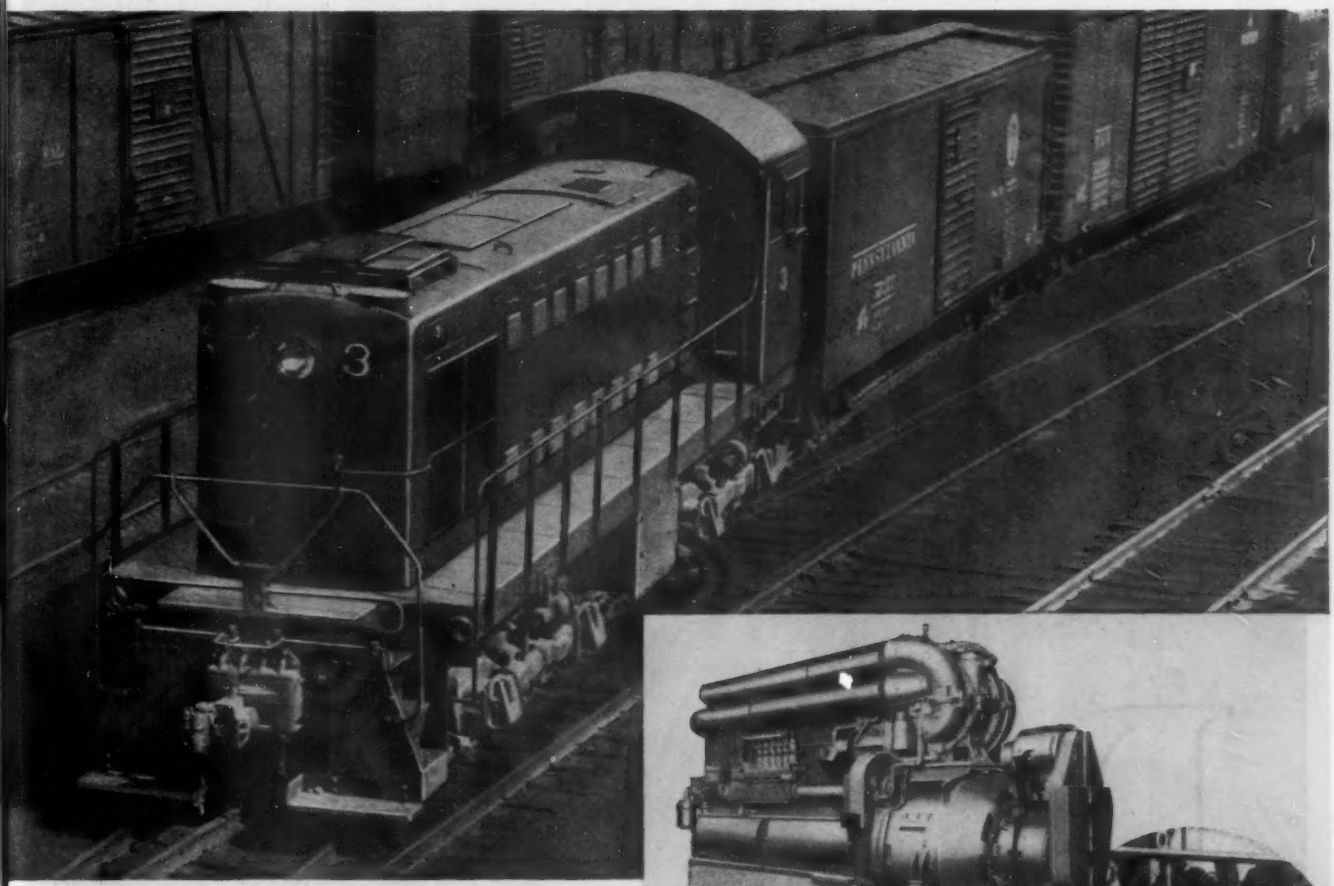


**+3 FAST ACCELERATION** and high average and top speeds are produced by G-E electric drive, which is designed to match the characteristics of the diesel engine. The generator is direct-connected to the engine frame to assure permanent alignment, and the traction motors have exceptionally rigid armatures that reduce wear on gears and pinions.

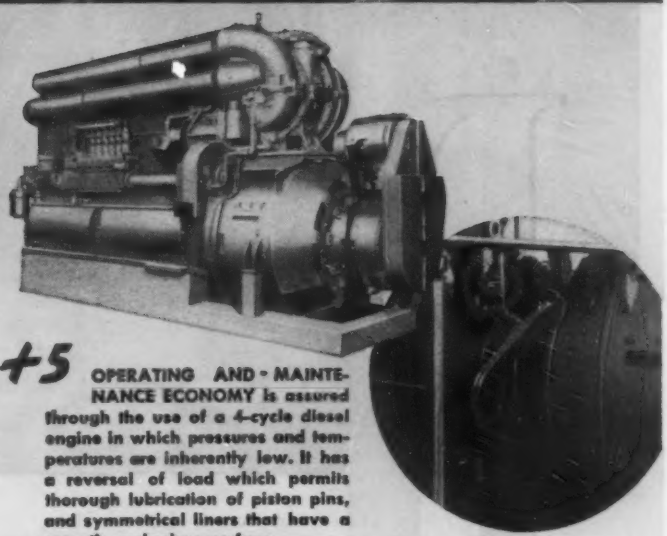



Alco

GE AMERICAN LOCOMOTIVE

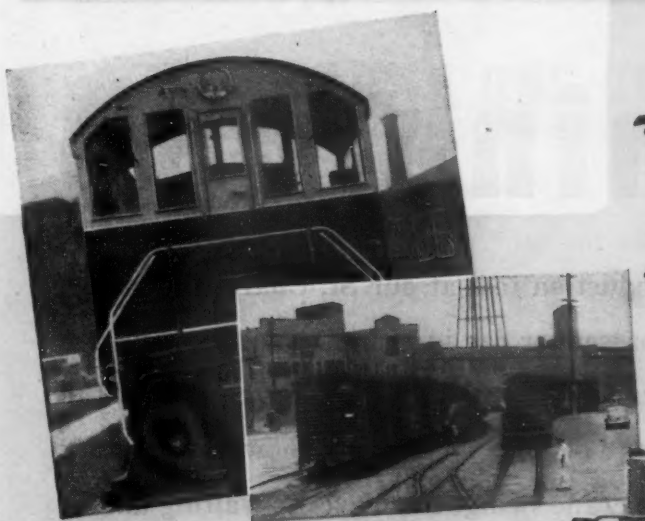


**+4** **EXTRA AVAILABILITY** is obtained with Alco-G.E. diesel-electrics because they are exactly suited to their jobs. On one eastern road, for example, eight of these units are averaging 98.7 per cent availability. As the pioneer builders of diesel-electric locomotives, we have gained unequaled experience and an intimate knowledge of railroad operating requirements and maintenance facilities.



**+5** **OPERATING AND MAINTENANCE ECONOMY** is assured through the use of a 4-cycle diesel engine in which pressures and temperatures are inherently low. It has a reversal of load which permits thorough lubrication of piston pins, and symmetrical liners that have a smooth, unbroken surface.

**+6** **20% FUEL SAVINGS** are obtained through the use of belt-driven auxiliaries, which permit Alco-G.E. engines to idle at 250 rpm, rather than the higher speeds required when auxiliaries are driven electrically or directly by the engine.



**+7** **EASE OF INSPECTION** and maintenance are assured by the complete accessibility of parts. Doors are provided at both sides of the hood, at the forward end, and between the cab and hood. Hatches over the diesel engine facilitate removal of the cylinder head, and the entire section of the hood over the engine-generator set is removable.

**+8** **FULL VISIBILITY** makes for fast, safe switching and reduces danger of damage to cars and lading. The low, narrow hood and wide cab windows give the operator a full view forward and backward.

113-120-9600

## and GENERAL ELECTRIC

# "Buttoning up"

**Meet A.C.F.'s giant jig . . . mass-production tool at our St. Charles plant . . . for assembling the entire side of a passenger car in record time. Actually the jig accommodates *both* sides of the car at once, representing in the case of the *hospital cars now under construction,* 170 feet of vertical "elbow" or working room. When the sides are assembled, a crane swings them over to waiting underframe and another car is well along to completion.**

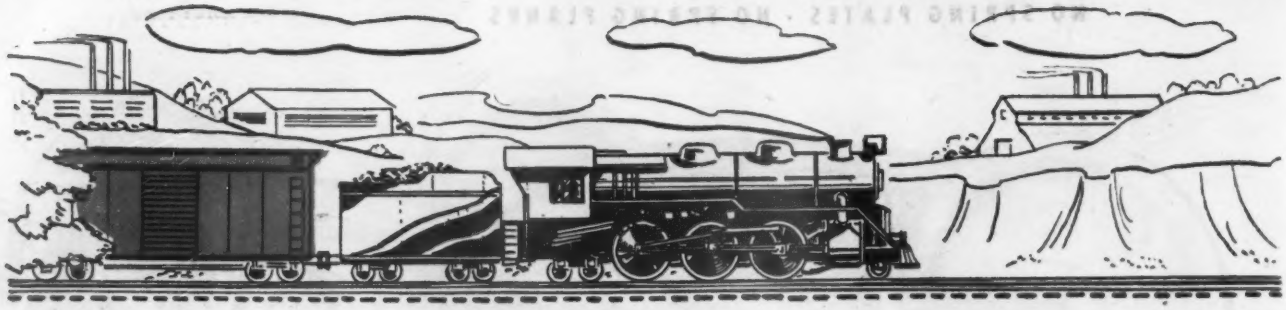
*Whatever A.C.F. Builds—It is Known to Build Well!* A.C.F.

# 85 FEET OF CAR IN ONE PIECE—IN JIG TIME!

**A.C.F., abreast of all developments that make for speedier as well as higher quality passenger car construction, is planning now for the day when the lid is off entirely. While heavily engaged in war work, and benefiting by the many self-taught, new techniques that the war has made necessary . . . A.C.F. is prepared for the time when the questions "How Many?" and "How Soon?" must BOTH be answered RIGHT — in the interest of the railroads.**

## AMERICAN CAR AND FOUNDRY COMPANY

NEW YORK • CHICAGO • ST. LOUIS • CLEVELAND • WASHINGTON
PHILADELPHIA • PITTSBURGH • ST. PAUL • SAN FRANCISCO



# *Simplify* your weight-reduction problems

## by choosing from these . . .

# 3 HIGH STRENGTH STEELS

## now made by *Republic*

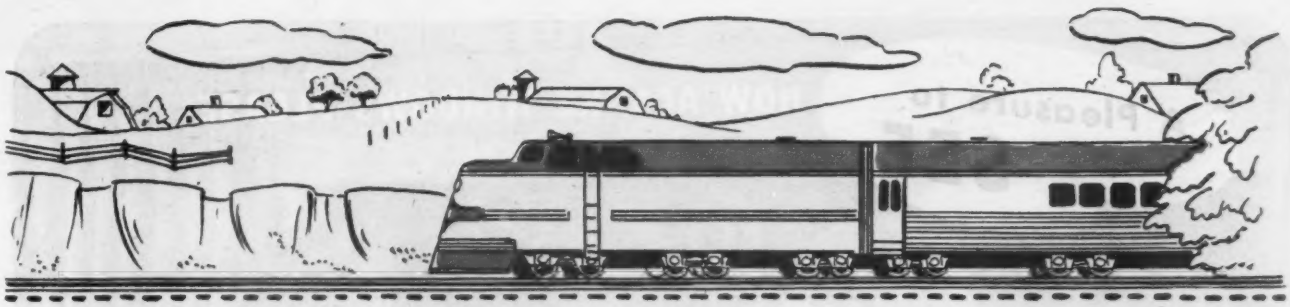
★ ★ ★

**REPUBLIC ALDECOR**

**REPUBLIC COR-TEN**

**REPUBLIC DOUBLE STRENGTH**

**Other Republic Products include Carbon, Alloy and Stainless Steels . . . Bars, Plates, Sheets, Strip,**



IF you are looking for the material which will do the best job of *reducing dead-weight* of equipment at *low cost* and *without sacrifice of safety,* Republic offers you not one or two, but THREE High Strength Steels from which to make your selection — ALDECOR, COR-TEN and DOUBLE STRENGTH.

While these three low-alloy steels are quite similar in most respects, certain differences may cause you to prefer one over the other two. Because of this, Republic believes that its policy of providing industry with steels and steel products for practically every need requires the production of all three steels.

COR-TEN and DOUBLE STRENGTH STEELS, with a background of more than ten years' experience, are well known to industry. ALDECOR, the most recent development in high strength steels, will be preferred by certain users for various applications as it becomes better known.

Like COR-TEN and DOUBLE STRENGTH STEELS, ALDECOR provides a minimum yield point of 50,000 pounds per square inch, is resistant to atmospheric corrosion and is easy to work and weld. These steels are equal in abrasion resistance to carbon steels of the same physical properties. They are produced in bars, plates, sheets and strip.

No hard and fast rules can be laid down as to which of these three high strength steels will be best suited to your particular needs. The factors governing each application must be carefully considered.

And that is where Republic metallurgical engineers come into the picture. Equipped with long experience in the application of steels to transportation equipment and various types of machinery where weight reduction can mean increased pay-load, lower operating costs, greater efficiency and decreased maintenance, they are prepared to study your individual requirements and to work with your own staff.

One of these specialists is ready to talk to you NOW about ALDECOR, COR-TEN and DOUBLE STRENGTH STEELS. When may he call?

**REPUBLIC STEEL CORPORATION**
**GENERAL OFFICES • CLEVELAND 1, OHIO**
Export Department: Chrysler Bldg., New York 17, N. Y

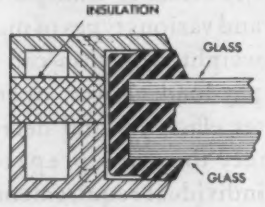
Republic
**HIGH STRENGTH STEELS**
ALDECOR • COR-TEN • DOUBLE STRENGTH

**Bolts and Nuts, Rivets, Wire, Boiler Tubes, Mechanical Tubing, Fabricated Steel Products**

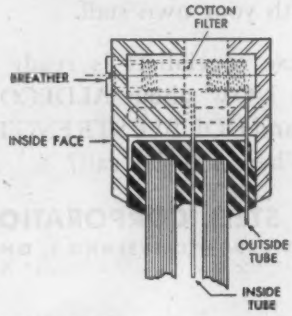
A Pleasure to SEE
HOW ADLAKE WINDOWS PLEASE
Adlake Windows use no dehydrating compound, hence there's none to replace. Except for routine washing or broken pane replacement Adlake Windows require absolutely no maintenance.

## CONSTRUCTION DETAILS

Both frames of Adlake Sash are insulated from each other. This prevents cold from traveling to inside of unit—prevents frosting.




Note inside and outside "breather" tubes. These permit air between panes to adjust to changes in temperature and altitude—prevent clouding without use of a dehydrant.




Adlake CURTAINS should be included. They never shake, rattle or jangle. Swivel tips prevent change in length; rubber shoes stop noise and creeping. Ask for details about Adlake Curtains . . . Curtain Fixtures . . . Sectional Diaphragms . . . Vestibule Curtains.

*BUY MORE WAR BONDS*

# . . . without any fuss, or maintenance

NIGHT or day . . . high or low . . . hot or cold, Adlake Double-Glazed Sash Units remain unclouded and unfrosted, provide unhampered view. Passengers always see what's around them. To please *your* passengers specify Adlake in new or reconditioned cars.

The Adlake Breather—an exclusive principle—permits the air between the two panes to adjust quickly to temperature changes.

Adlake Double-Glazed Windows are again furnished in aluminum and can be aluminlited if desired. They are designed and produced for new cars or for reconditioning present equipment. They are designed and built to standards that have won them a reputation for superiority throughout years of service. Write for prices and details . . . and specify Adlake.

Adlake TRADE MARK

# THE ADAMS & WESTLAKE COMPANY

ESTABLISHED IN 1857 — ELKHART, INDIANA — NEW YORK · CHICAGO

ADLAKE RAILWAY CAR EQUIPMENT, FITTINGS and SPECIALTIES • DOUBLE-GLAZED ALUMINUM WINDOWS • WINDOW CURTAINS • VESTIBULE CURTAINS • SECTIONAL DIAPHRAGMS • LUGGAGE RACKS • ASH RECEPTACLES • HARDWARE

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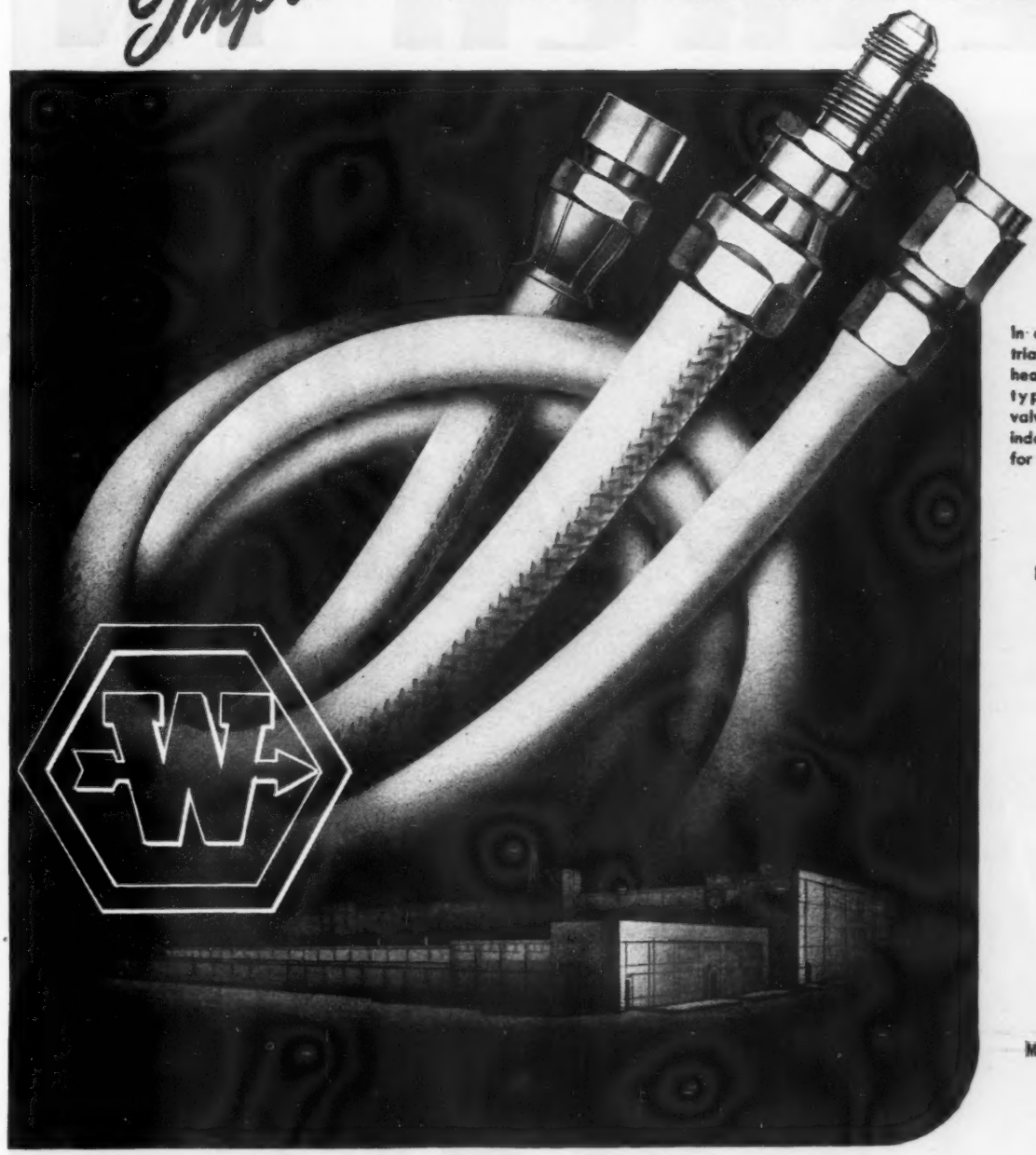
WINDOW
RDWARE

ILWAY AGE

# *Improved* INDUSTRIAL HOSE LINES



In addition to industrial hose, Weatherhead plants make all types of fittings, valves, hydraulic cylinders and other parts for these industries:

AUTOMOTIVE
★
REFRIGERATION
★
RAILROAD
★
MARINE
★
FARM EQUIPMENT
★
ROAD MACHINERY
★
DIESEL
★
L. P. GAS
★
APPLIANCE MANUFACTURERS

*Look Ahead with*

## Weatherhead

THE WEATHERHEAD COMPANY, CLEVELAND 8, OHIO
Plants: Cleveland, Columbia City, Ind., Los Angeles
Canada — St. Thomas, Ontario

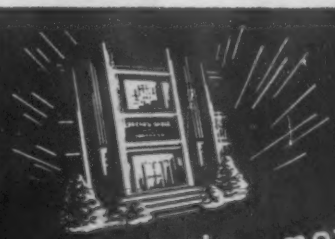
New uses are being found daily for the application of our *improved* industrial hose lines on machinery of all kinds. We manufacture hose assemblies of all types to withstand pressures up to 10,000 P.S.I. They can be equipped with either permanent crimped ends or with re-usable, quick-attachable hose ends. For information or literature write or phone any Weatherhead branch office.

BRANCH OFFICES: NEW YORK • PHILADELPHIA • DETROIT • CHICAGO • ST. LOUIS • LOS ANGELES

# SEARCH IN

Here, the moisture-permeability of a synthetic is tested, over a time period, under conditions equivalent to years of difficult service... one of a multitude of separate explorations.

# SYNTHETICS



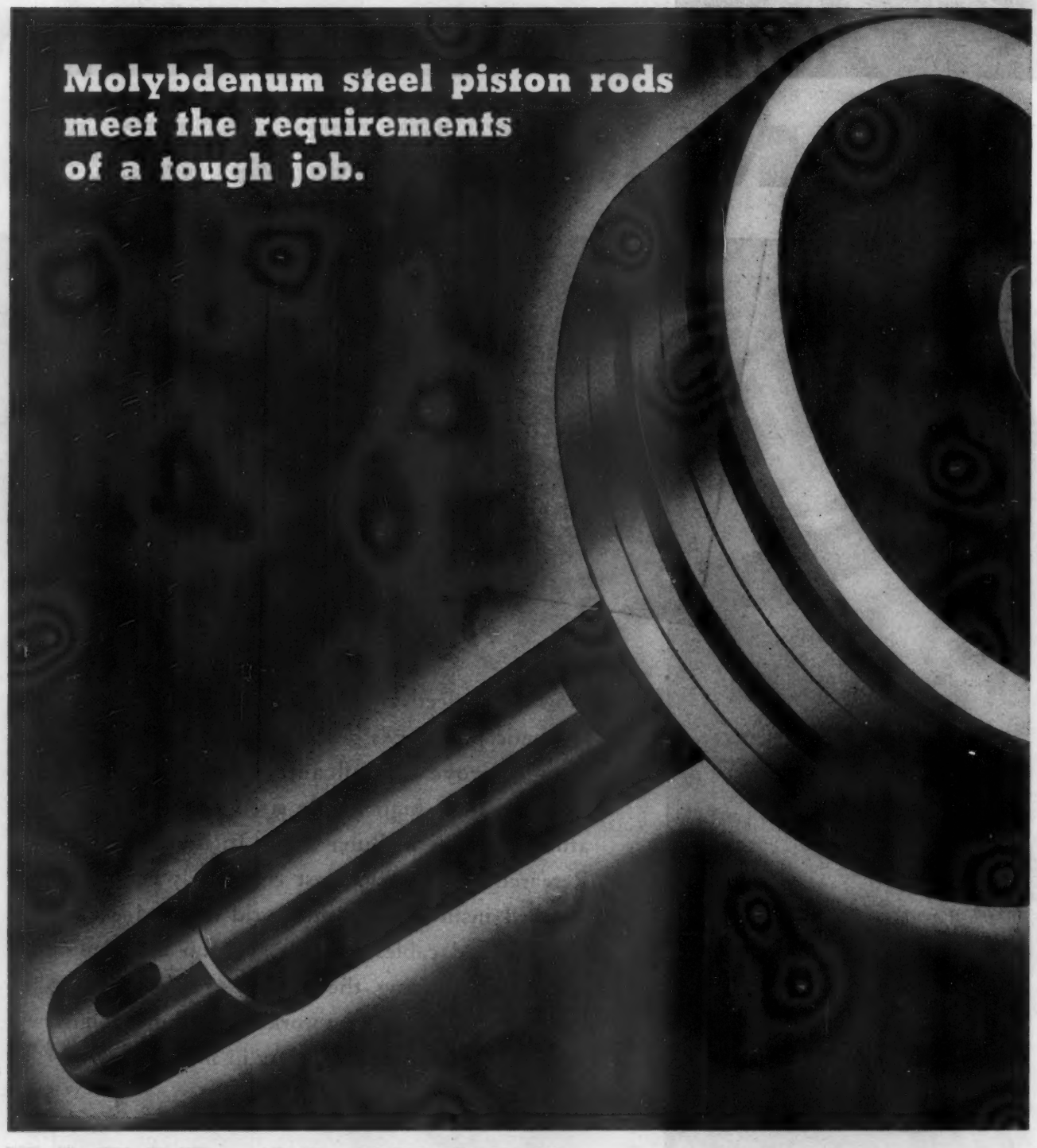
Here, new and surer insulating performance is the goal of a great Research Laboratory.

How most effectively to use the new materials? Which synthetic polymer is best for insulation in dampness? How improve the vulcanization of butyl rubber? How get both high tensile strength and low temperature flexibility in Buna S? . . . In the General Cable Research Laboratory, most completely equipped and manned institution in the world devoted exclusively to wires and cables, a tireless group of scientists is seeking and finding the answers to a host of urgent, practical questions. The work being done opens new vistas of product serviceability in many fields.

## GENERAL CABLE CORPORATION

*Manufacturers of Bare and Insulated Wires and Cables for Every Electrical Purpose*

**Molybdenum steel piston rods meet the requirements of a tough job.**



CLIMAX FURNISHES AUTHORITATIVE ENGINEERING DATA ON MOLYBDENUM APPLICATIONS.

ARMY E NAVY

MOLYBDIC OXIDE, BRIQUETTED OR CANNED • FERROMOLYBDENUM • "CALCIUM MOLYBDATE"

**Climax Molybdenum Company**

500 Fifth Avenue • New York City

MOLY

# The Modern Touch

IN MODERN deluxe railway cars the Formica table tops, window stools and other surfaces are among the details that contribute most to the overall up-to-dateness of the effect.

In most of the deluxe trains that went on the rails during the ten years before the war, Formica was liberally used for surfaces where severe conditions had to be met, and it was important that the surface maintain its good looks.

This colorful plastic sheet is unmarred by lighted cigarettes, alcohol, cosmetics, or washing alkalies. If wood grains are desired genuine wood veneers of the finest woods may be introduced into the sheet to make the grain authentic. Multi-colored silhouette inlays are also possible — for instance, the railroad's crest or trade mark may be inlaid in any surface.

Formica is very easy to clean with soap and water, or if necessary, with solvents. It cuts down maintenance time.

FORMICA

**THE FORMICA INSULATION COMPANY**
**4641 Spring Grove Avenue**
**Cincinnati 32, Ohio**

## SAFEST FOOTING

Overall pattern of ever-sharp Morton Kass perforated buttons provides positive traction in any kind of weather, from any angle of approach.

## ONE PIECE CONSTRUCTION

Made in easily handled sections of proper width without welds, rivets or joints. No special tools required; nothing to work loose.

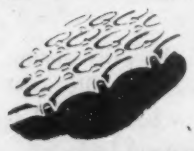
## ABSOLUTELY SELF CLEARING

Rounded edges of circular openings provide little hold for snow and ice. Ample size openings comprise a large part of tread area.

## EASIEST TO INSTALL

Its light weight plus the simple cup and bolt fastening device make "Open-Grip" Tread very easy to install quickly—with minimum labor.

## EXTRA STRONG CONSTRUCTION



Openings formed with a downward extending flange to make "Open-Grip" Tread far stronger than sheet from which it is fabricated.

## COSTS LESS TO USE

With its strength due to construction features instead of weight "Open-Grip" costs less per car. Saves on installation costs too.

# Only MORTON "Open-Grip" Safety Tread Running Board Offers ALL These Six Important Features

You cover every angle when you standardize on Morton "Open-Grip" Safety Tread for a self-clearing, anti-slip, all-weather surface. On freight cars, brake steps and locomotives, "Open-Grip" Tread makes it easy and inexpensive to provide really safe footing.

## MORTON *"OPEN-GRIP"* SAFETY TREAD

A substantial part of the area of "Open-Grip" Tread is open space. Curved construction of open areas discourages accumulation of snow and ice. Long-famous Morton Kass Perforated Buttons provide contact friction no matter what the direction of approach.

## NO WELDS - NO RIVETS NO LOCK JOINTS

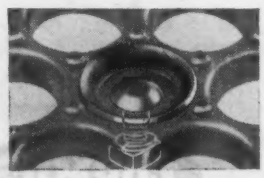
Unique one-piece construction of "Open-Grip" Tread is *safer* construction; there's nothing to break loose through strain or vibration. Installation and maintenance costs are lowered too.

## QUICKLY FASTENED IN PLACE

"Open-Grip" Tread is easily fastened to saddles of car roof by a cup fitting any of the open areas. Slotted bolt-hole compensates for drilling variations.

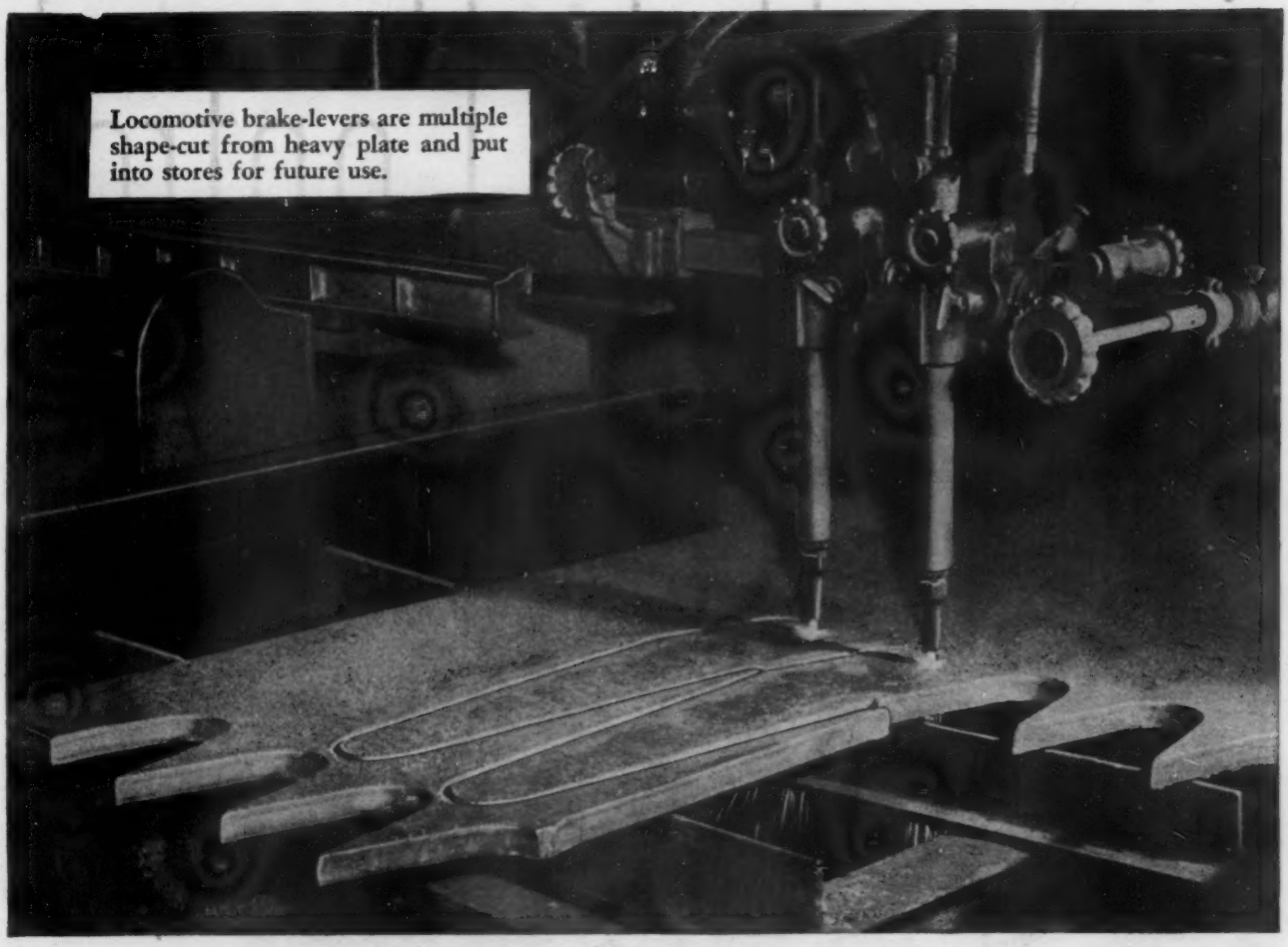
DISTRICT SALES OFFICES

New York, N. Y.—30 Church St., Courtland 7-7542.
Chicago, Ill.—332 S. Michigan Ave., Wabash 6789.
St. Louis, Mo.—Paul Brown Bldg., Central 3348.
St. Paul, Minn.—E906 First National Bank Bldg., Cedar 1940.
Washington, D.C.—6945 Wisconsin Ave., Bethesda, Md., Wisconsin 7378.



# MORTON MANUFACTURING CO.

5105 WEST LAKE STREET • CHICAGO 44, ILLINOIS



Locomotive brake-levers are multiple shape-cut from heavy plate and put into stores for future use.

# BUILD UP YOUR STOCK PILE

## *With Shape-Cut Parts*

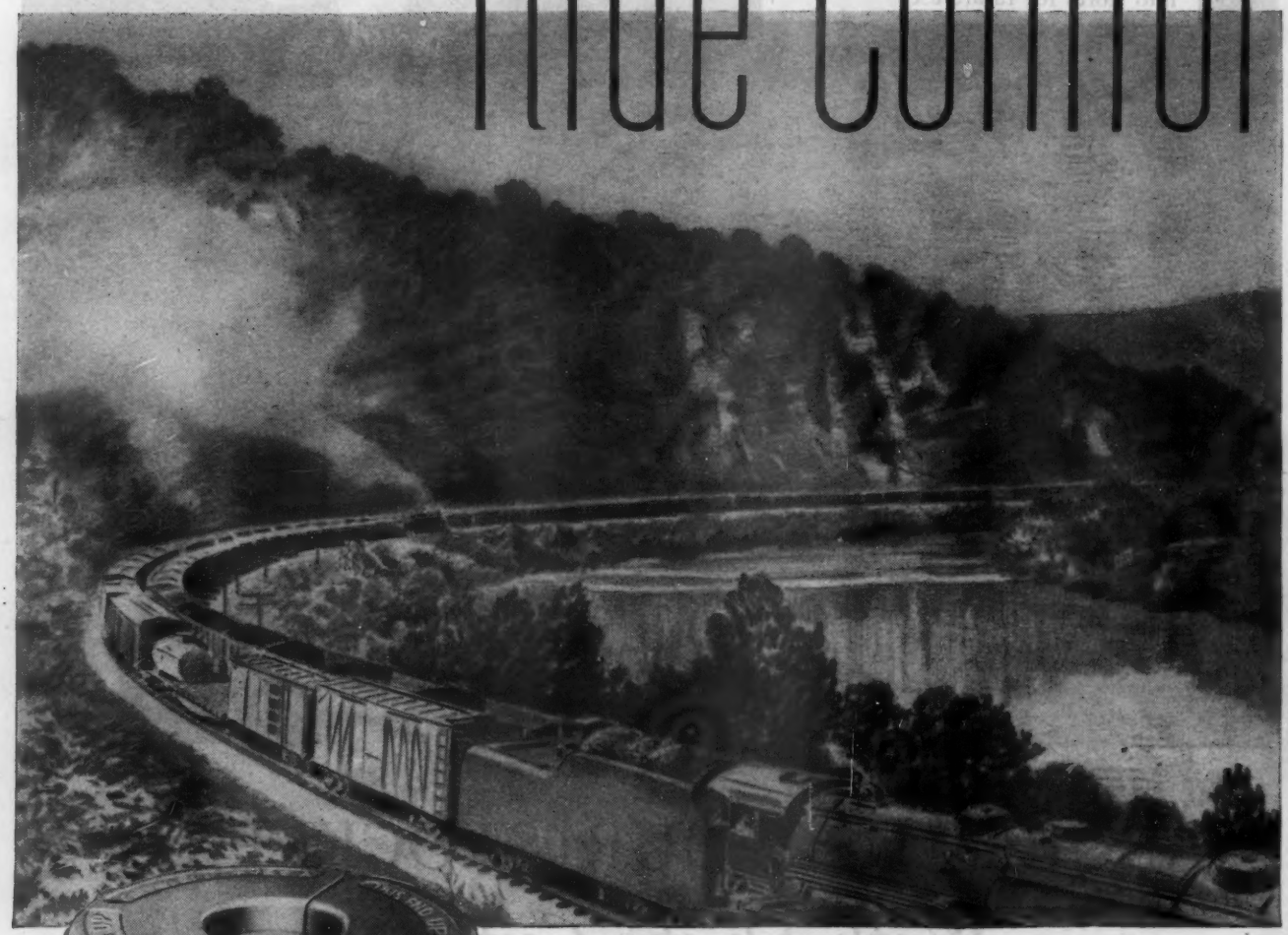
● With Oxweld's oxy-acetylene shape-cutting equipment, mechanical departments can produce car and locomotive parts of almost any size and shape in their own shops from stock plate, sheets, billets, and forgings or from metal salvaged in demolition. Thus, adequate replacement inventories can be maintained at all times because parts can be made when they are needed, either singly or in quantities. They can be made quickly, with changeovers from cutting a part of one shape to that of another taking but a few minutes. And they can be made so accurately that in most cases little or no machining is required before use or assembly.

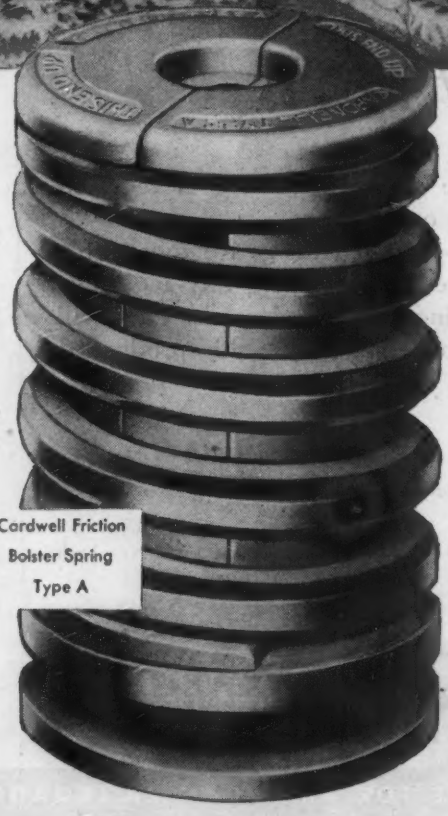
Oxweld representatives are thoroughly experienced in applying oxy-acetylene shape-cutting to railroad needs. They will be glad to help you use this production method in your shop.

THE OXWELD RAILROAD SERVICE COMPANY
*Unit of Union Carbide and Carbon Corporation*
UCC
Carbide and Carbon Building Chicago and New York

SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

# Ride Control





Cardwell Friction Bolster Spring Type A

## *Cardwell Friction Bolster Springs*

**Permit higher Speeds with Safety . . . Control Bouncing and Side-swaying—thereby providing effective Ride Control. Protect Cars and Lading against road shocks.**

*

**Cardwell Westinghouse Co., Chicago**
**Canadian Cardwell Co., Ltd., Montreal**

ntrol
ter Springs
ol Bouncing and Side-
Control. Protect Cars
Co., Chicago
Ltd., Montreal
RAILWAY AGE
The
METAL DES

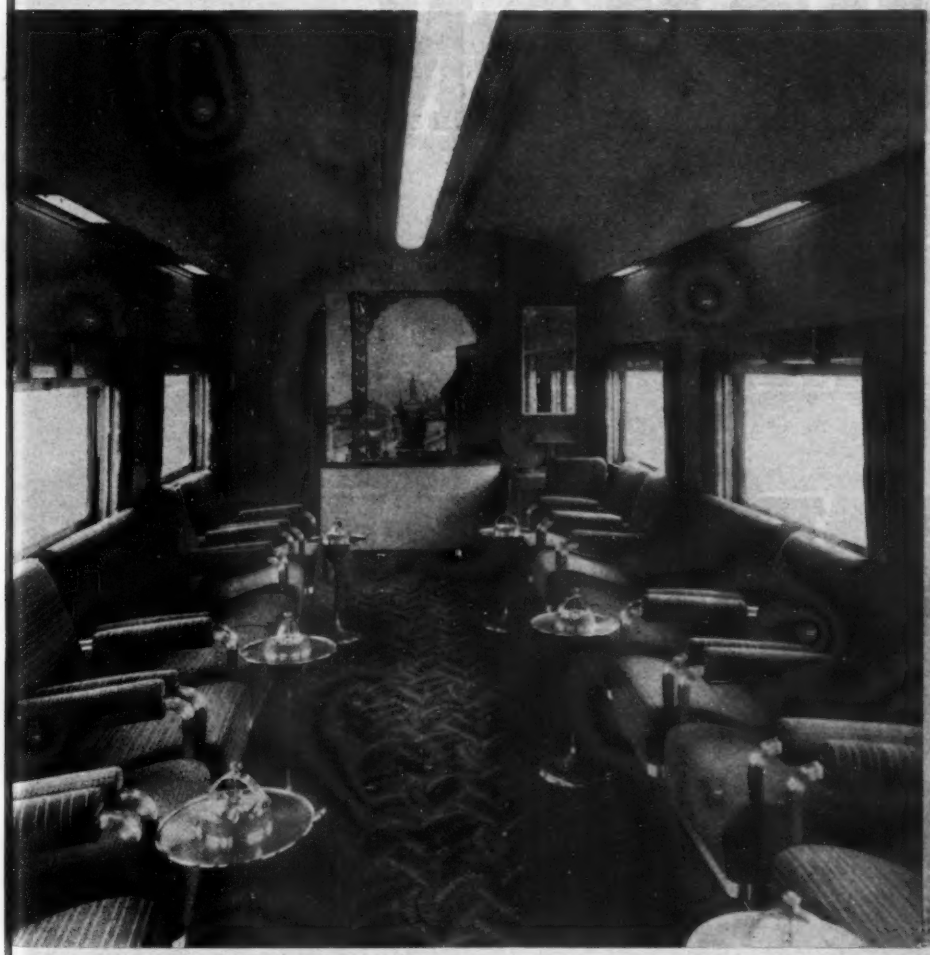
# EAST ★ ★ ★ WEST ★ ★ ★ NORTH ★ ★ ★ SOUTH

# ★ ★ ★ THEY'LL SEE AMERICA

WHEN non-essential travel is no longer unpatriotic, war-weary veterans of the Front Lines and Production Lines will sight-see America . . . from East to West . . . from North to South.

Heroes all . . . their families, too . . . will relax, after their monumental endeavors, in seeing America . . . the beautiful.

For luxury-loving peacetime travelers, the railroads will do the same magnificent job that they are now doing for the traffic of war. And . . . we shall again build Aluminum Chairs, Tables and other items of equipment that will have the same standard of excellence that has been characteristic of GF products for forty years.



GF

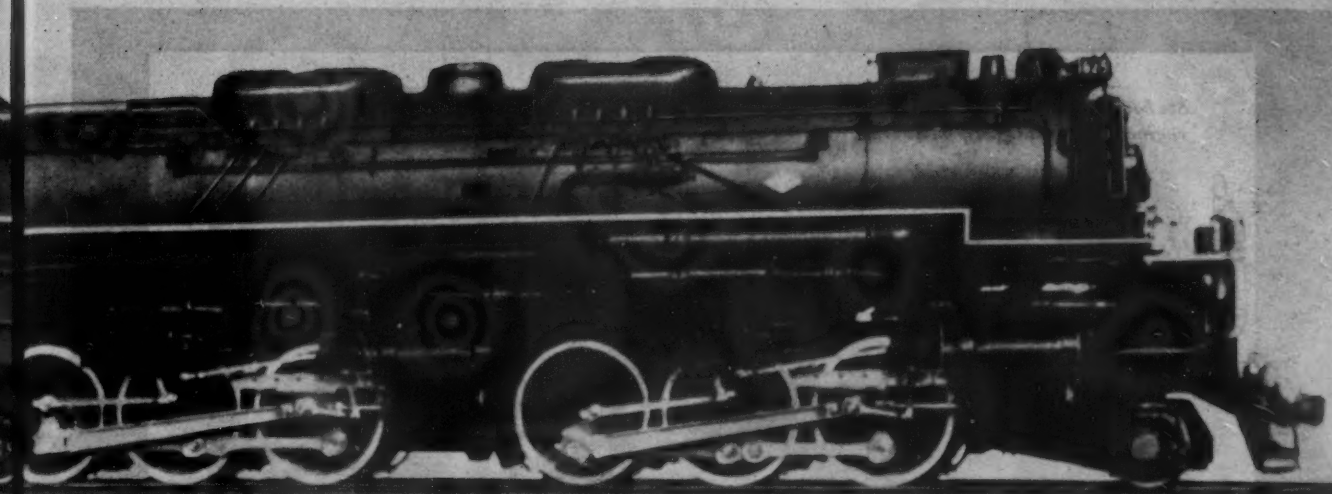
*The* **GENERAL FIREPROOFING COMPANY** • **Youngstown 1, Ohio**

METAL DESKS • ALUMINUM CHAIRS • METAL FILING CABINETS • STEEL SHELVING • FILING SUPPLIES • SAFES • STORAGE CABINETS

# SYPHON LOCOMOTIVES ARE BETTER

PHILADELPHIA
CHICAGO
MONTREAL

*Locomotive*



# SYPHONS PAY FOR THEMSELVES IN FUEL ECONOMY

*University of Illinois*
*Engr. Dept. Test Shows 8.47%*

## *Extra Dividends:*

**SAFETY FROM BOILER EXPLOSION**
**MORE BOILER CAPACITY**
**LESS BOILER MAINTENANCE**

24,206
SYPHONS
USED ON
10,078
LOCOMOTIVES
ON 189
RAILROADS

Firebox Company

*See how G-E lighting can give postwar help to railroads, invite passenger traffic, sell comfort, aid service, G-E engineers will gladly help on any railroad lighting problem. Scene: Burlington Travel Headquarters, Chicago.*

**Good lamps are the heart of good lighting**

The aim of General Electric Lamp Research is to make G-E Lamps Stay Brighter Longer

**Lamps marked G-E bring you the benefits of over 50 years of General Electric Lamp Research . . . more and more light at less and less cost.**

**G-E MAZDA LAMPS**

**GENERAL ELECTRIC**

BUY WAR BONDS AND HOLD THEM

Hear the G-E radio programs: "The G-E All-Girl Orchestra", Sunday 10:00 p. m. EWT, NBC; "The World Today" news, Monday through Friday 6:45 p. m. EWT, CBS; "The G-E Houseparty," Monday through Friday 4:00 p. m. EWT, CBS.

# This* HEYWOOD Seat BY THE THOUSANDS for



* Slight changes in outward appearance were made to satisfy varying design tastes, but basically and structurally the above seat is the one we supplied in thousand-fold lots to many of America's leading railroads!

Burlington Route

ILLINOIS CENTRAL

MISSOURI PACIFIC LINES

GM&O

NEW YORK CENTRAL SYSTEM

L&N

ERIE

C&EI

## HEYWOOD-WAKEFIELD

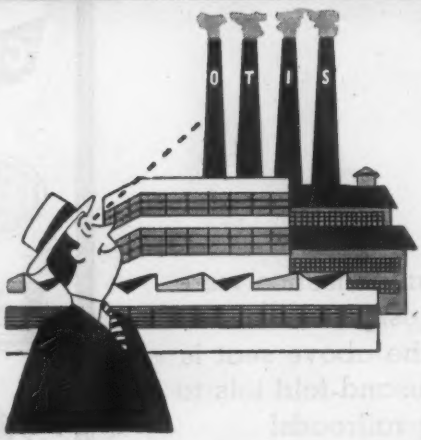
Established 1826 Gardner, Massachusetts

TRANSPORTATION SEATING DIVISION

# THE WAR...
# YOUR ELEVATORS...
# AND YOUR EYES

**1.** On flat-tops, battleships, and cruisers, Otis precision-built elevators have been and are today serving the United States Navy on the seven seas. From our experience in providing this equipment have come marked improvements in design, new manufacturing techniques, and a store of knowledge destined to provide still further improvements in Otis Elevators after the war.

**2.** Today, therefore, when planning the modernization of your present equipment, give particular consideration to Otis Elevators. This company, with 244 offices throughout the United States, is in a position now to cooperate with you in the preparation of plans and surveys.




**3.** *So, keep your eyes on Otis.* In the days ahead, this company, through the continued use of advanced methods and new skills, will, as in the past, be ready to assure you of the last word in efficient and economical vertical transportation.

Remember, there is an Otis representative as near as your telephone. He will be glad to discuss future plans for new elevator or escalator installations or the modernization or maintenance of existing equipment. Call him today.

Otis ELEVATOR COMPANY
OFFICES IN ALL PRINCIPAL CITIES

For

NO FOG • NO FILM • NO FROST

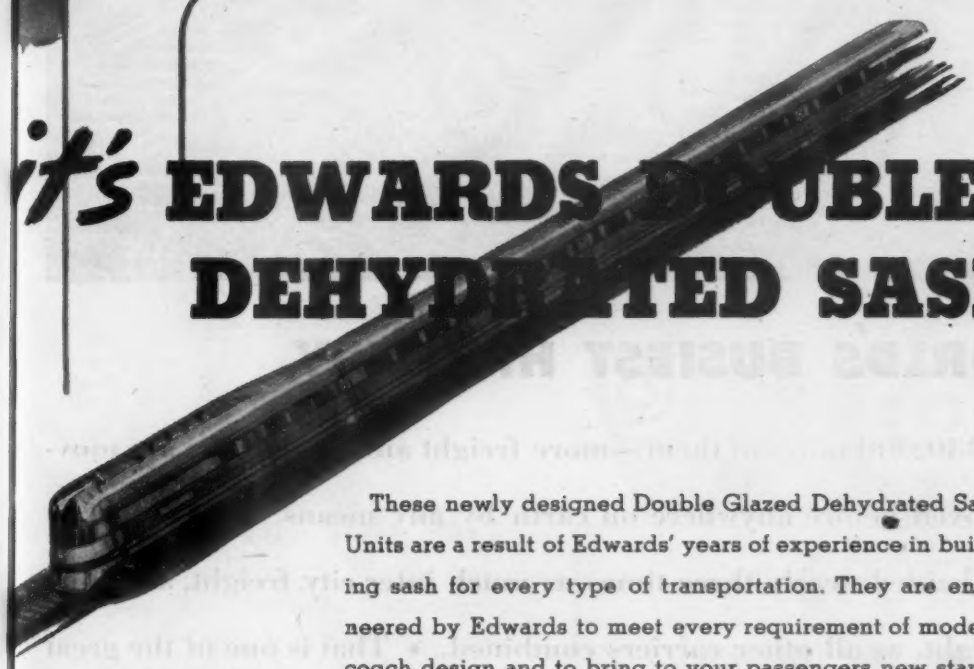
MODERN STREAMLINED DESIGN

LIGHTER WEIGHT *with* GREATER STRENGTH

EASIER QUICKER INSTALLATION

TOP AIR CONDITIONING EFFICIENCY

INCREASED PASSENGER SATISFACTION



it's EDWARDS DOUBLE GLAZED DEHYDRATED SASH

These newly designed Double Glazed Dehydrated Sash Units are a result of Edwards' years of experience in building sash for every type of transportation. They are engineered by Edwards to meet every requirement of modern coach design and to bring to your passengers new standards of travel comfort and convenience.

O. M. EDWARDS CO., INC. • SYRACUSE, N.Y.

**EDWARDS SASH**

**THE EYES OF TRANSPORTATION**

SASH FOR EVERY TYPE OF TRANSPORTATION — ON LAND, ON THE SEAS, IN THE AIR

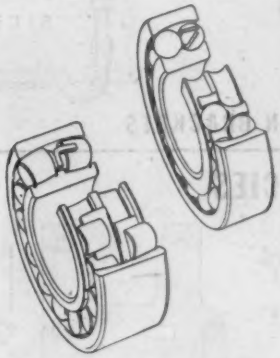
# WORLD'S BUSIEST HIGHWAY

**Over such highways—230,000 miles of them—more freight and passengers are moving today than ever moved before anywhere on earth by any means of transport. • In 1944, the railroads hauled nearly three times as much inter-city freight, and nine times as much war freight, as all other carriers combined. • That is one of the great lessons to come out of the war—what modern American railroads can do. • And one of the things to remember after the war is won is that in peacetime, too, America needs and must have the kind of transportation which only its railroads can deliver.**

ASSOCIATION OF AMERICAN RAILROADS

BUY MORE WAR BONDS

*All United for Victory*



# Let's get the War over!

One year ago America's railroads had hoped that the European War would be over by this time . . . or at least advanced to the point where they could commence the program for new passenger cars and locomotives. Now, more ammunition is needed. More guns. More steel and SKF Spherical Roller Bearings for war materiel of all kinds. The modernization program must wait—until after the railroads and SKF have helped complete today's foremost job of winning the war.

5760

SKF INDUSTRIES, INC., PHILA. 34, PA.

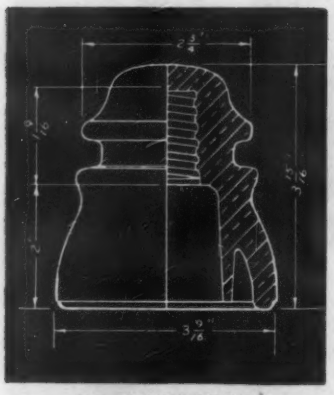
SPECIFY

SKF

BEARINGS

# ▸ INSULATORS
# ▸ SUPPORTS
# ▸ BRACKETS

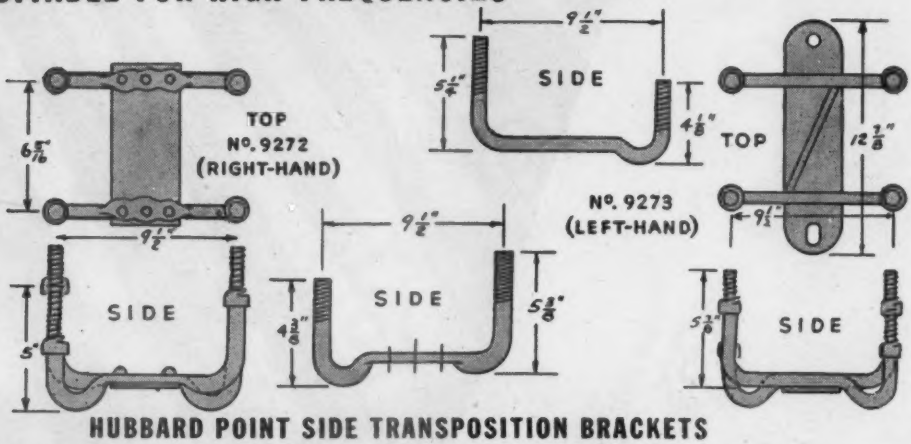
## FOR HIGH-FREQUENCY CARRIER CIRCUITS



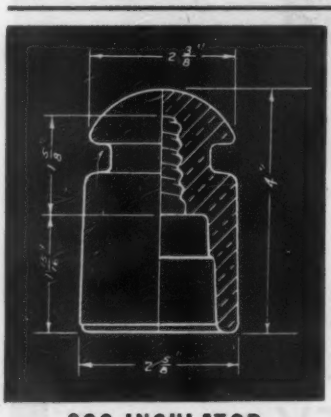
**DP INSULATOR**

**Tough, uniform, crystal-clear glass. Fits standard pins.**

## SUITABLE FOR HIGH FREQUENCIES



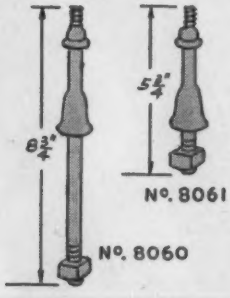

**HUBBARD POINT SIDE TRANSPOSITION BRACKETS**



**CSC INSULATOR**

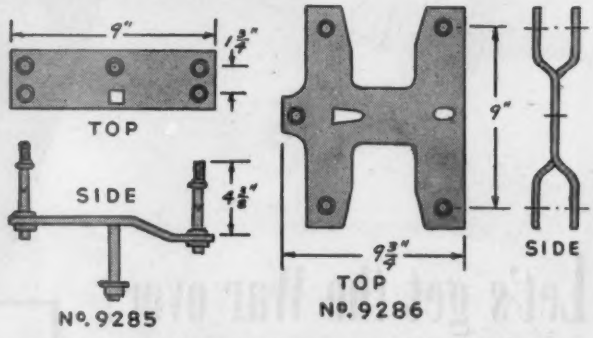
**Spindle-threaded. Supported by steel pin and lead thimble.**

## DESIGNED FOR ULTRA-HIGH FREQUENCIES




**HUBBARD HOT-GALVANIZED STEEL PINS**

***Used with lead thimbles to support CSC insulators.***




**HUBBARD TRANSPOSITION BREAK IRON BRACKETS**

***For use with CSC insulators.***

GRAYBAR has been supplying insulators and hardware for carrier circuit systems since their inception in 1918. A Graybar Man near you is ready to give you experienced aid in selecting and applying the right items for your requirements.

Graybar is your most convenient source of supply also for poles, crossarms, anchors, pole line hardware, tools, and everything else you need for line construction and maintenance. *Graybar Electric Company, Graybar Building, New York 17, N. Y.* 4522

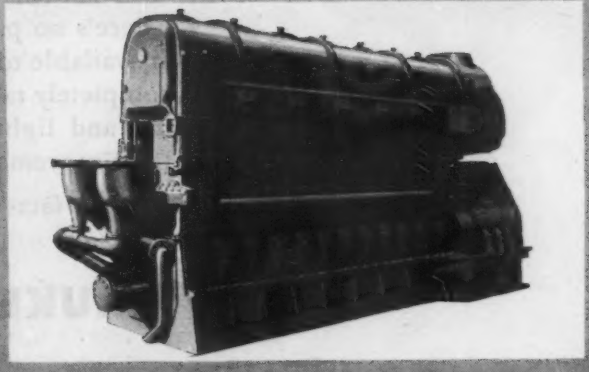
*via* GraybaR

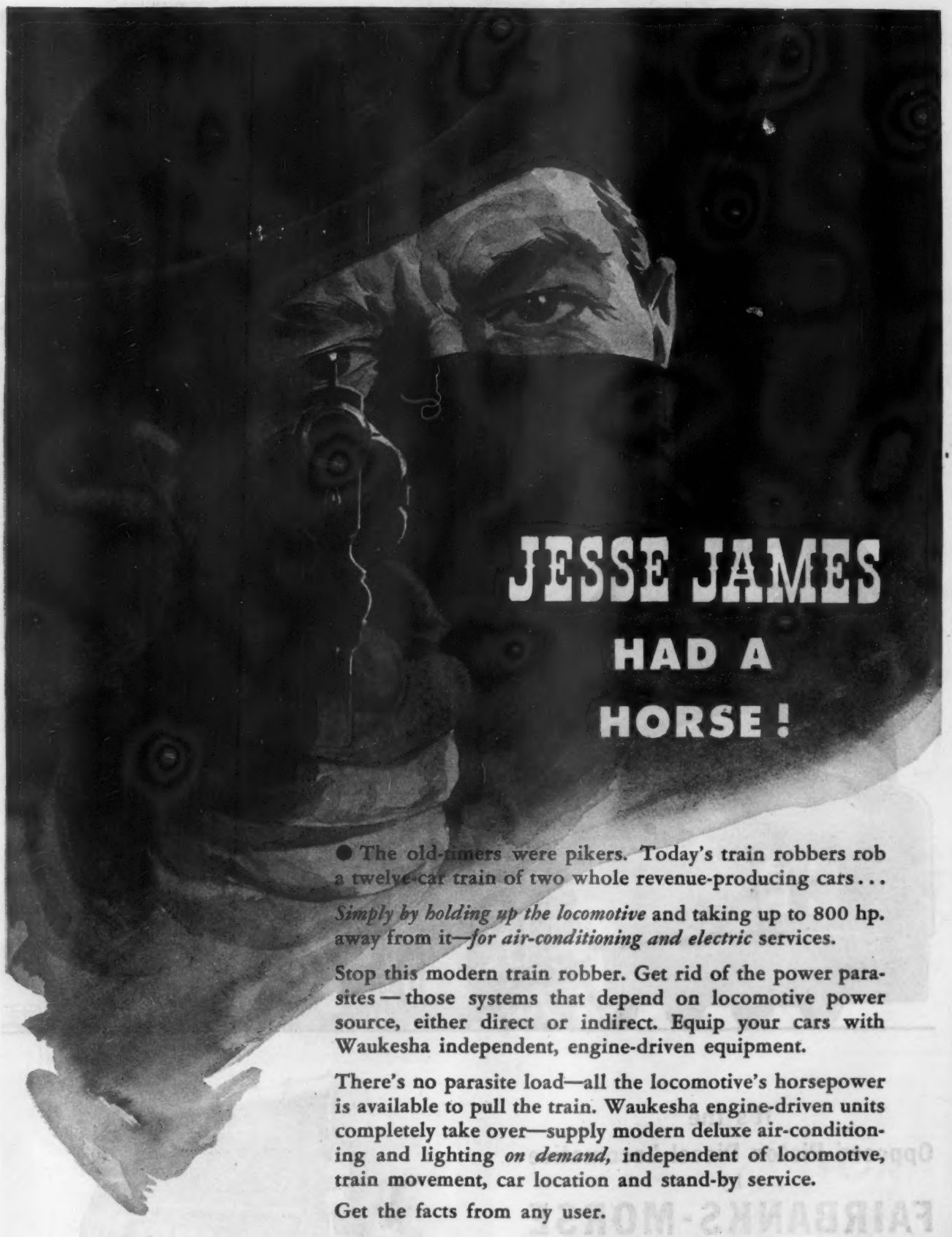
**IN OVER 80 PRINCIPAL CITIES**

# TOMORROW'S POWER TODAY!

It's the
Opposed-Piston Diesel Locomotive
by
**FAIRBANKS-MORSE**

*A name worth remembering*






● The old-timers were pikers. Today's train robbers rob a twelve-car train of two whole revenue-producing cars . . .

*Simply by holding up the locomotive* and taking up to 800 hp. away from it—*for air-conditioning and electric* services.

Stop this modern train robber. Get rid of the power parasites — those systems that depend on locomotive power source, either direct or indirect. Equip your cars with Waukesha independent, engine-driven equipment.

There's no parasite load—all the locomotive's horsepower is available to pull the train. Waukesha engine-driven units completely take over—supply modern deluxe air-conditioning and lighting *on demand,* independent of locomotive, train movement, car location and stand-by service.

Get the facts from any user.

**Refrigeration Division**

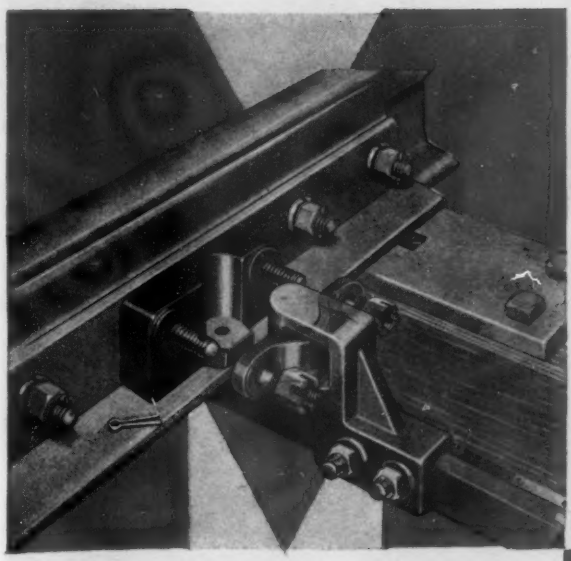
**WAUKESHA MOTOR COMPANY**

**WAUKESHA • WISCONSIN**

***Largest Builders of Mobile Engine-Driven Refrigeration and Generator Equipment***

# *Choose* RACOR TYPES M and MF SWITCH CLIPS

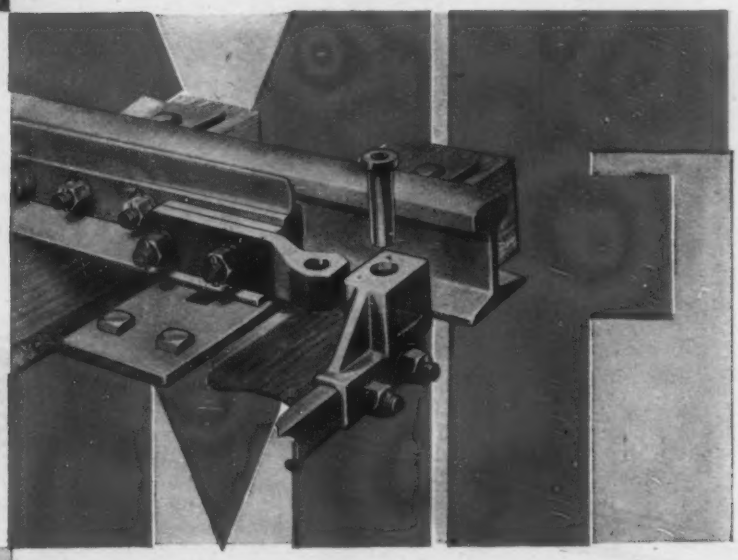
## FOR LONG LIFE AND LOW MAINTENANCE



RACOR Types M and MF Switch Clips provide maximum life of switch points because they assure free swiveling, easy operation and prevent rolling of points.

Rugged in construction, easy to inspect and accessible for lubrication, Types M and MF Switch Clips reduce switch maintenance. They are machined to close tolerances and can be relied upon for exceptionally long service.

Correct point position, with respect to stock rail, is positive.



RACOR

**RAMAPO AJAX DIVISION**

230 PARK AVENUE NEW YORK, N.Y.

They are particularly recommended for power-operated switches, but are applicable to any type of switch or switch rod.

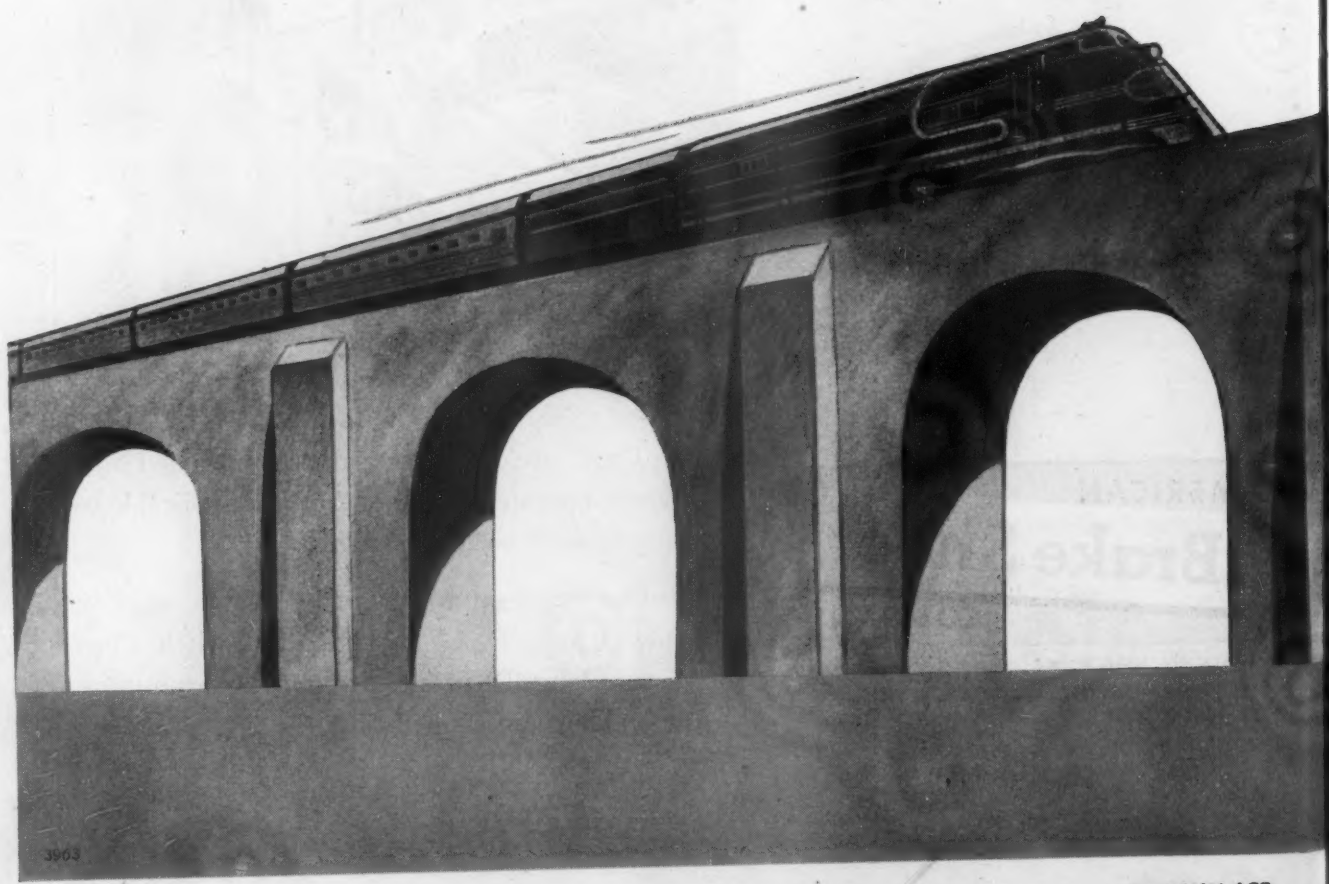
Our representative will be glad to explain how Racor Types M and MF Switch Clips assure long life of switch points and minimize valuable maintenance time.

AMERICAN **Brake Shoe** COMPANY

HILLBURN, NEW YORK
NIAGARA FALLS, N. Y.
CHICAGO, ILLINOIS
EAST ST. LOUIS, ILL.
PUEBLO, COLORADO
SUPERIOR, WISCONSIN
LOS ANGELES, CAL.
SEATTLE, WASHINGTON
NIAGARA FALLS, ONTARIO

3664

# PREVENT SLID FLATS



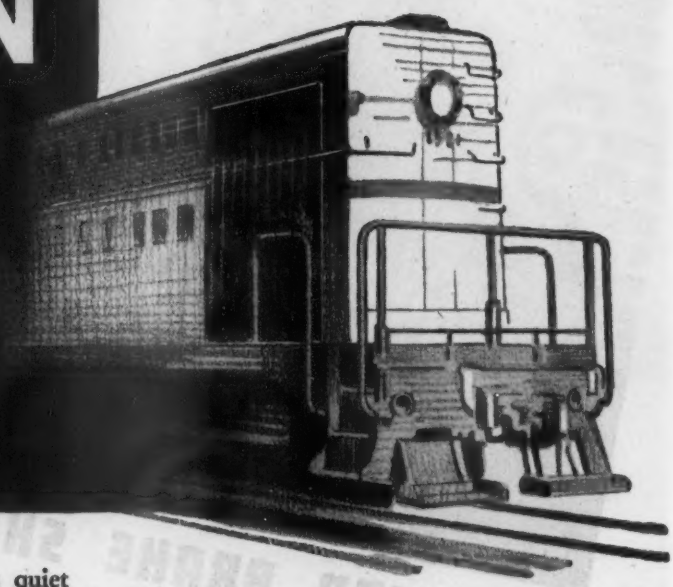
# AMERICAN BRAKE SHOE CONTROLLER Prevents SLID FLATS During Braking

1. Rugged and simple
2. Wheel slippage instantly detected and promptly corrected
3. Full brake restored as soon as slippage is eliminated
4. May be *accurately* tested when car is moving or standing
5. Proved by years of high speed passenger service

AMERICAN Brake Shoe COMPANY

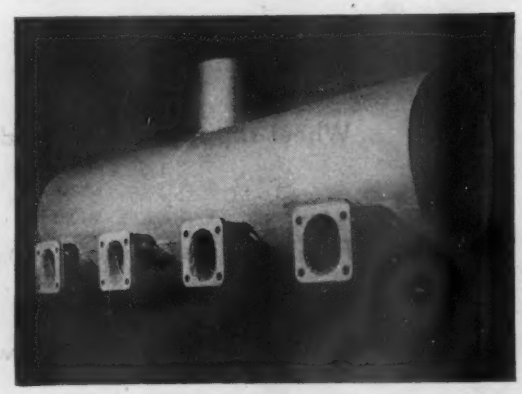
BRAKE SHOE AND CASTINGS DIVISION
230 Park Avenue, New York 17, N. Y.

# WHY DIESEL OPERATION IS *Quiet*



**MAXIM** exhaust manifold silencers quiet Diesel exhausts in railroading today, on the main line and in the switching yards. Both from a practical operating and public relations point of view, good silencing is necessary to make these Diesel powered giants good neighbors.

Pioneers in the development and manufacture of silencers, Maxim brings many years of experience to bear on their construction of silencers for locomotives. Regular exhaust silencers and the manifold silencers that take the place of the conventional exhaust manifold both combine very efficient silencing with the sturdy construction necessary to give long service life and low maintenance. Spark arrestors are also used where a fire hazard exists. Maxim also makes a line of Heat Recovery Silencers which combine effective silencing with the production of hot water or steam for heating purposes. This practical fuel-saving method of heating has many interesting possibilities in railroad operation. Our engineering department will be glad to work with you on possible applications to your particular problems. Heat Recovery Silencer Bulletin WH-101 on request.



ARMY E NAVY

# MAXIM

THE MAXIM SILENCER CO. • 64 HOMESTEAD AVE., HARTFORD, CONN.

*Ideal* FOR TODAY'S INTENSIVE SERVICE

# BOXPOK DRIVING WHEELS

BOXPOK Driving Wheels have never been so important as they are today—with higher operating speeds and more intensive service.

The box-section rim and spoke construction and more uniform tire support of Boxpok Wheels prevent out-of-round wheels and flat spots—wheels stay round—tire mileage is increased.

Greater strength with less weight and more effective counterbalancing permits higher locomotive speeds with less wear and tear on track and equipment.

It's a proven fact that locomotives equipped with BOXPOK Driving Wheel Centers stay in active service longer—require less maintenance.

**GENERAL STEEL CASTINGS**

Eddystone, Pa.
Granite City, Ill.

# YALE GETS THEM BACK IN SERVICE FASTER!

**Yale Electric Crane Trucks** are highly mobile machines used for speedy, efficient stripping of locomotives as well as for quickly transporting and stacking great tonnage in yard or indoor storage areas.

**Yale Electric Industrial Trucks** save time and effort—are power-packed to speed the movement of tremendous tonnage per day—travel fast and maneuver easily in congested areas. High lift models save storage space.

**Yale Hand Lift Trucks** are ruggedly built for long life—provide easy lift, easy roll, easy steer—take the shorter hauls at a fast clip. Wide range of models and capacities for efficient handling of skids, skid bins, and pallets.

**Kron Springless Dial Scales,** made by Yale, eliminate excessive time and money-wasting handling operations, provide accurate, efficient, low-cost weighing and counting of all kinds of materials. Available in all types from bench to crane scales.

Speed and more speed is the order of the day for American railroad men. And speed in handling is what Yale Materials Handling Machinery provides—whether in the round house, back shop, freight house, or in stores. Giant loads are safely lifted and moved where needed—with time and effort saving ease. Unnecessary rehandling, one of the *hidden costs* in keeping materials on the move, is eliminated. But—complete details are yours from the nearest Yale railroad representative. Phone or write today. The Yale & Towne Manufacturing Company, 4530 Tacony Street, Philadelphia 24, Pa.

*RAILWAY REPRESENTATIVES*

**NEW YORK 17, N. Y.**
Eastern Railway Supplies, Inc.
110 East 42nd Street

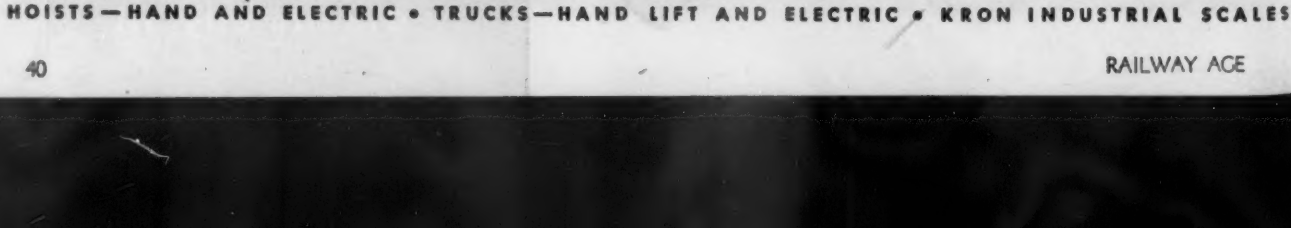
**CHICAGO 1, ILL.**
The Earl E. Thulin Co.
Suite 339, Hotel Sherman

**WASHINGTON 5, D. C.**
Ralph W. Payne, Metropolitan Bank Bldg.

**CLEVELAND 15, OHIO**
C. E. Murphy, 923 Midland Bldg.

**ST. PAUL 1, MINN.**
Robert J. Wylie, 612 Pioneer Bldg.

**ST. LOUIS 3, MO.**
Clarence Gush, 2232 Olive Street

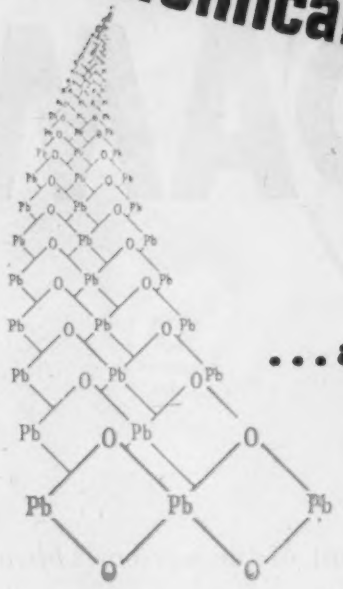



**MATERIALS HANDLING MACHINERY**

*CUTS PRODUCTION COSTS... SAVES TIME... SAVES EFFORT... PROMOTES SAFETY*

**HOISTS—HAND AND ELECTRIC • TRUCKS—HAND LIFT AND ELECTRIC • KRON INDUSTRIAL SCALES**

# Uniformity of Chemical Composition



## . . . another real reason why RED LEAD means Extra Protection against Rust

*Red Lead's outstanding uniformity of performance results not only from its extreme purity but also from its precise chemical composition . . . lead orthoplumbate. This makes for predictable chemical behavior.*

For many years Red Lead has been the standard among metal protective paints because of inherent fundamental properties of the pigment itself.

Among the most important of these is Red Lead's definite chemical composition and uniformity—as distinguished from pigments which have indefinite composition or vary from batch to batch, with resulting possibility of variation in performance.

One reason for this uniformity is that Red Lead is a simple chemical compound, being made from oxygen and high purity metallic lead. Consequently, Red Lead is an extremely pure compound. It contains no corrosion accelerating impurities such as water-soluble salts of chlorides or sulfates.

Uniform composition means dependable performance, day after day, job after job.

Furthermore, Red Lead has the property of counteracting acid conditions, recognized as accelerators of rust. In the presence of various acids, Red Lead forms insoluble neutral lead salts at the approximate rate at which the acids are supplied. This is true whether the acids originate from acid forming environments, such as gas, smoke and moisture in the atmosphere, or from the decomposition of the vehicle. Thus, a rust inhibiting condition is maintained with a Red Lead paint.

Remember, too, that Red Lead is compatible with practically all vehicles commonly used in metal protective paints, including phenolic and alkyd resin types.

### Specify RED LEAD for All Metal Protective Paints

The value of Red Lead as a rust preventive is most fully realized in a paint where it is the only pigment used. However, its rust-resistant properties are so pronounced that it also improves any multiple pigment paint. No matter what price you pay, you'll get a better paint for surface protection of metal, if it contains Red Lead.

### Write for New Booklet

*"Red Lead in Corrosion Resistant Paints"* is an up-to-date, authoritative guide for those responsible for specifying and formulating paint for structural iron and steel. It describes in detail the scientific reasons why Red Lead gives superior protection. It also includes typical specification formulas. If you haven't received your copy, address nearest branch listed below.

* * *

The benefit of our extensive experience with metal protective paints for both underwater and atmospheric use is available through our technical staff.

**NATIONAL LEAD COMPANY:** New York 6, Buffalo 3, Chicago 80, Cincinnati 3, Cleveland 13, St. Louis 1, San Francisco 10, Boston 6 (National-Boston Lead Co.); Pittsburgh 30 (National Lead & Oil Co. of Penna.); Philadelphia 7 (John T. Lewis & Bros. Co.)

**DUTCH BOY RED LEAD**

# MEARLFOAM 5

THIS... is the first civilian announcement of the war-born *blended multi-protein foaming agent* for highspeed extinction of gasoline, oil and other serious fires. The U.S. Navy uses this effective multi-protein foam extensively for preparedness—and for quickly extinguishing fires on shipboard and at shore bases. MEARLFOAM-5 yields the live, lasting foam with the tough, elastic water-retaining film. When split-seconds count—you can rely on MEARLFOAM-5 to put fire out fast—keep fire out, *permanently!*

***Completely safe and non-corrosive—may be used in standard Mechanical Foam-Forming Equipment***

*FOAM ON FIRE OUT... Stays OUT!*

*THE MEARL CORPORATION*
153 Waverly Place, New York 14, N.Y.

R

SEALT
HOOK

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AM
var-born blended
nd other serious
eparedness—and
LFOAM-5 yields
en split-seconds
ut, permanently!
CORPORATION
ce, New York 14, N.Y.
RAILWAY ACE
SEA
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SEAL
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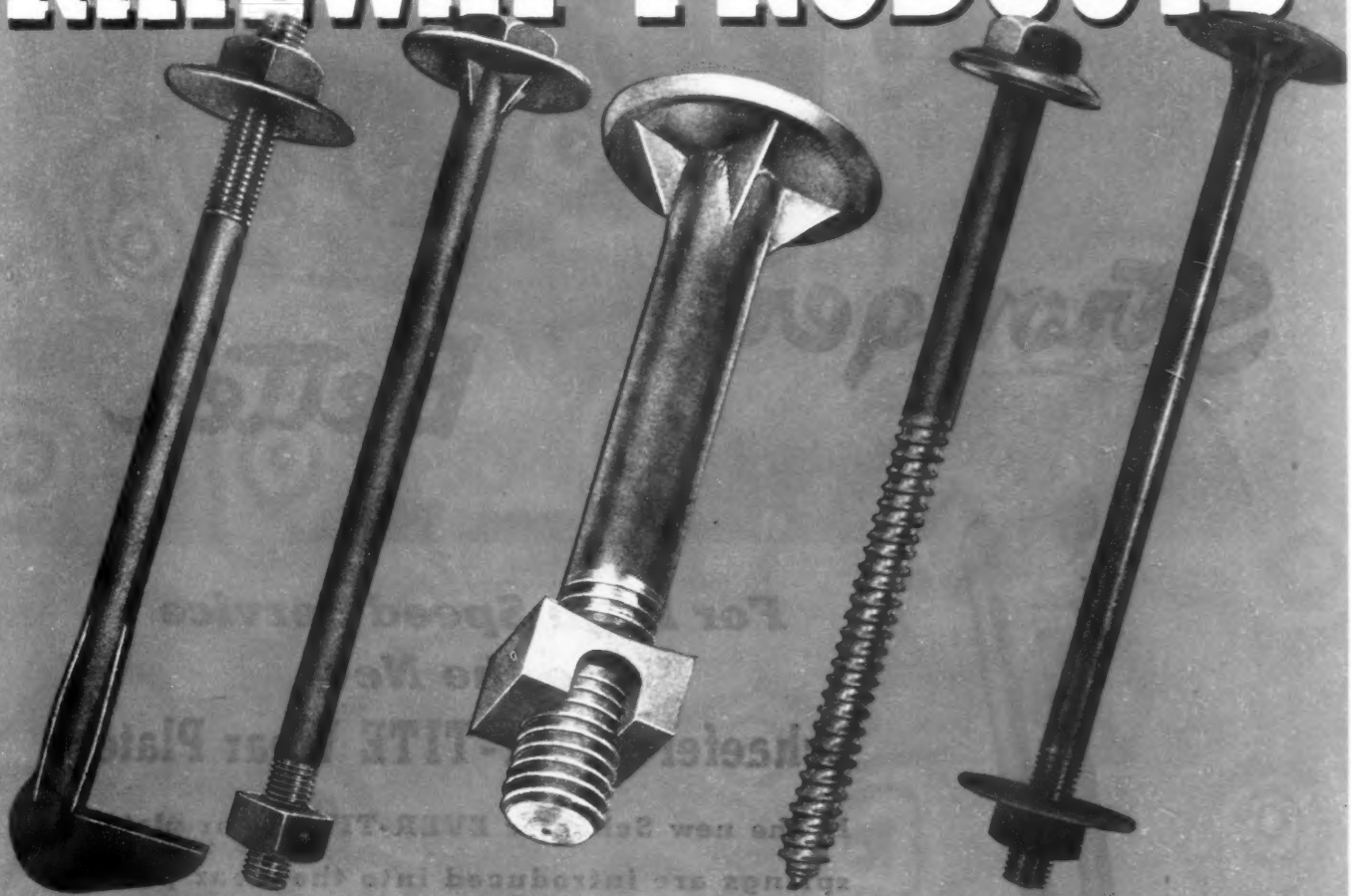
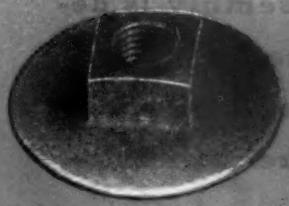
# SEALTITE
## RAILWAY PRODUCTS



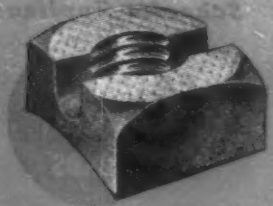
SEALTITE HOOK BOLT | SEALTITE TIMBER BOLT | SEALTITE CAR BOLT | SEALTITE LAG SCREW | SEALTITE GUARD RAIL BOLT



SEALTITE WASHER NUT

***Double-Life* FINISH—Sealed in Zinc**

Actual service tests reveal distinct economies are effected by specifying Sealtite Railway Products with Double-Life Hot-Dipped, sealed in zinc finish. Corrosion is retarded—the fasteners have much longer life and expensive replacements are eliminated. Protect your investment—*specify* Hot-Dipped Galvanized—Sealed in zinc.



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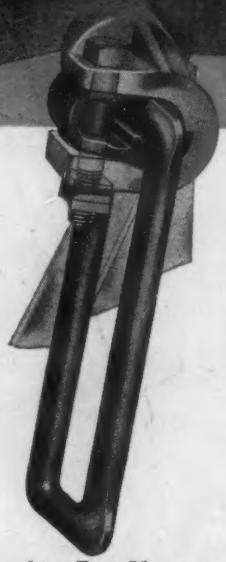

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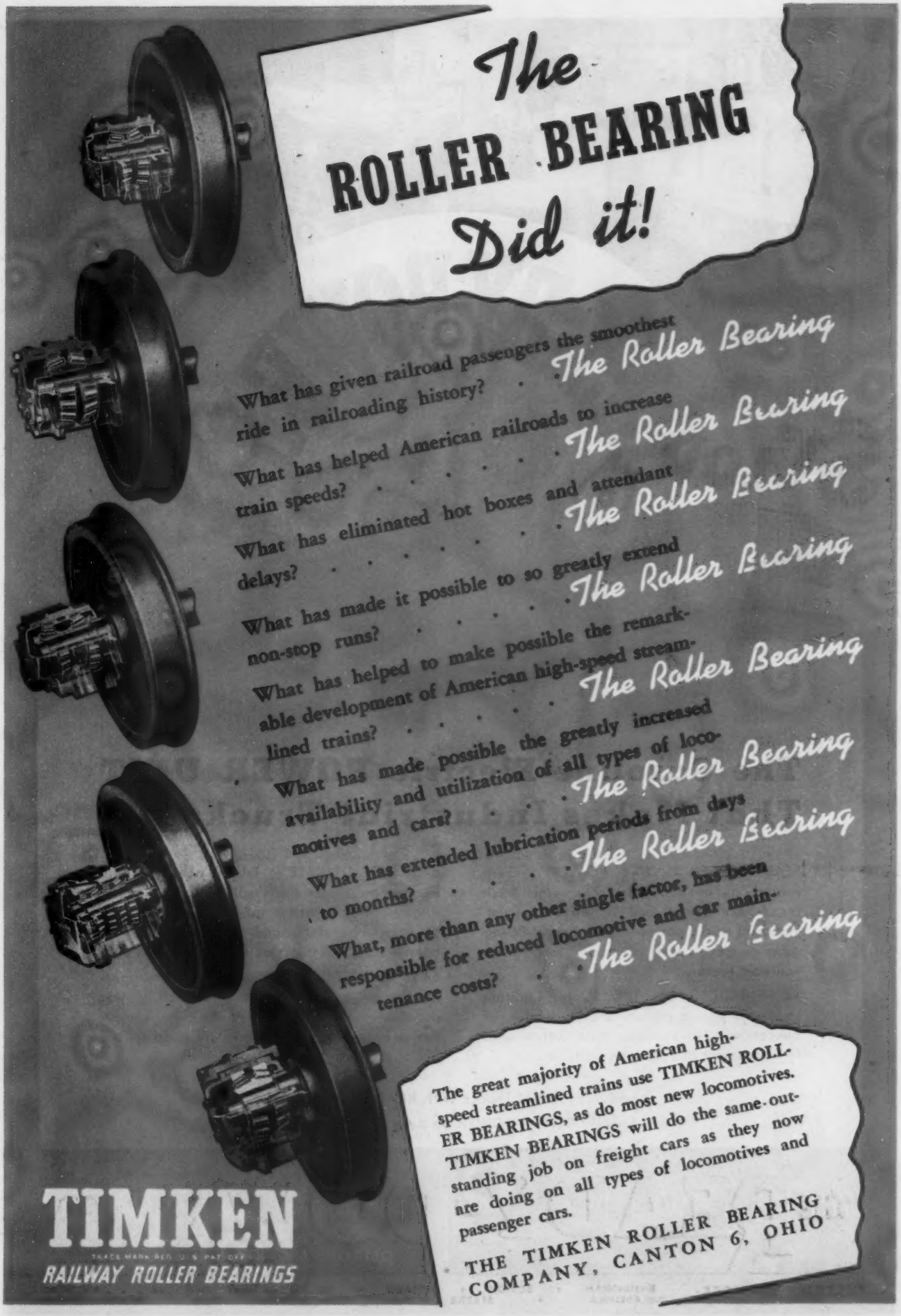

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What has helped American railroads to increase train speeds? . . . . . The Roller Bearing

What has eliminated hot boxes and attendant delays? . . . . . The Roller Bearing

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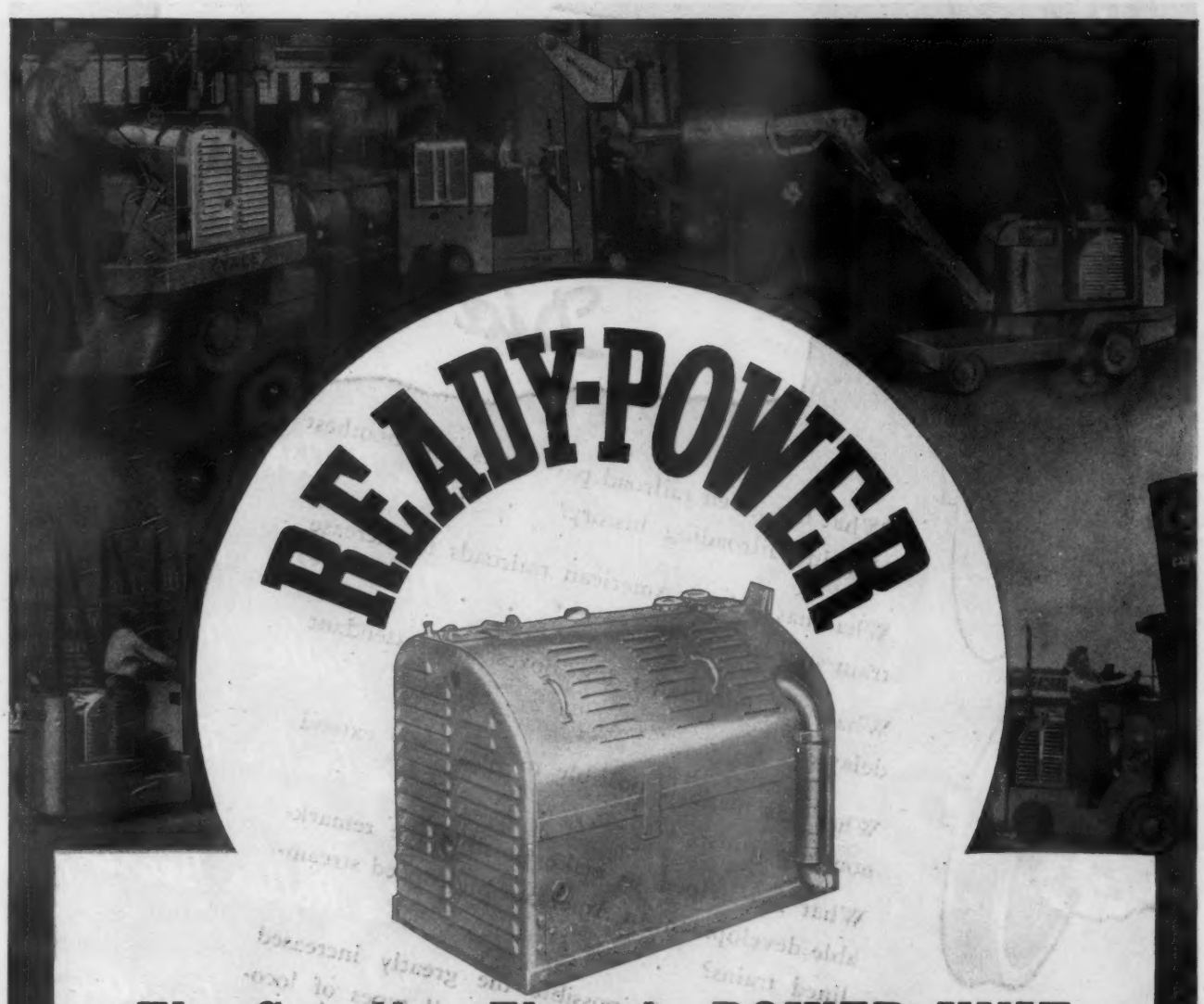

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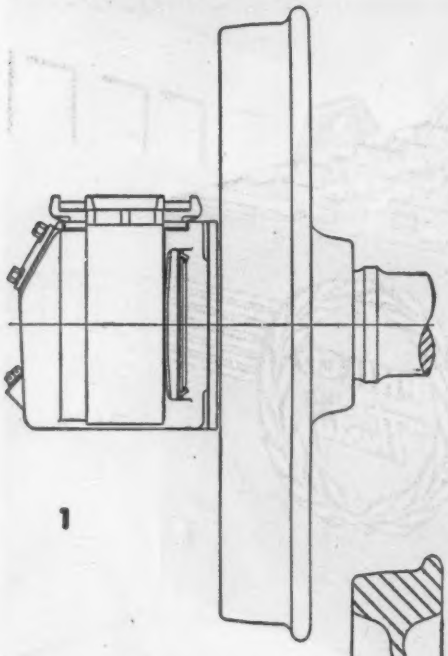
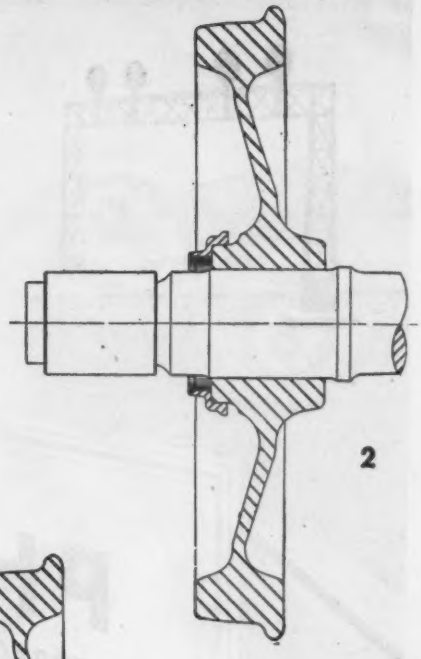
## PROCEDURE FOR WHEEL REMOVAL



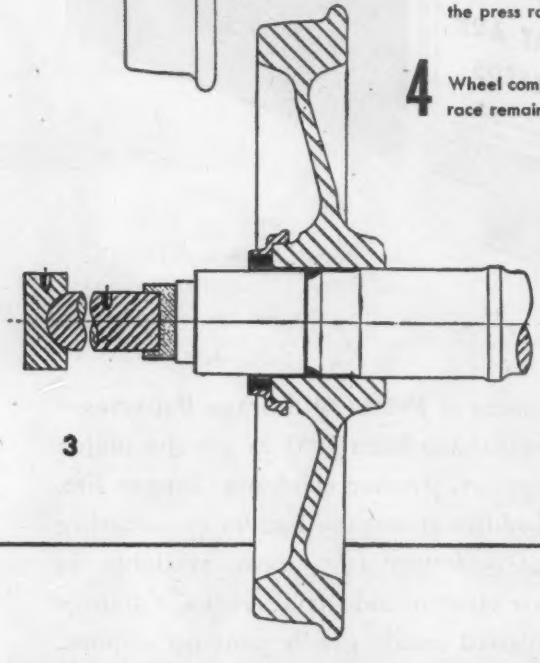
1

**1** Hyatt Roller Bearing Journal Box assembled on the journal.



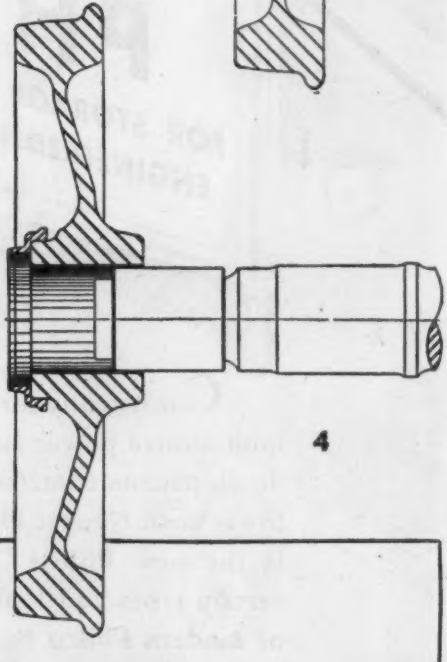
2

**2** Hyatt Journal Box removed from journal. Bearing inner race still in place.



3

**3** Wheel partly pressed off axle. Note that the bearing inner race is not disturbed. Note also the design of the self-aligning cap and block shown in section under the press ram.



4

**4** Wheel completely removed. Inner race remains on the journal.

# *Ask the shop man what this means...*

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# Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered in U. S. Patent Office.

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## *In This Issue*


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***723rd Battalion Makes Friends in France*** ..... **414**

A former employee of the Union Pacific, Capt. G. O. Larmer, now adjutant with the 723rd, reveals in a letter home a few of the many services his outfit has rendered to the impoverished citizens of the district in which it is stationed.

***Diesel Fuel—Will There Be Enough?*** ..... **417**

With the tremendous consumption of petroleum products anticipated in the post-war world there are fears that our supply will soon be exhausted. F. C. Davern, of the Standard Oil Company of New Jersey, offers an analysis throwing some light on the future and suggesting a solution.

***Wabash Finances Greatly Strengthened*** ..... **419**

This road's successful financing last month of $47 million of first mortgage bonds, with favorable terms, provides the basis for this discussion of the road's capital position.

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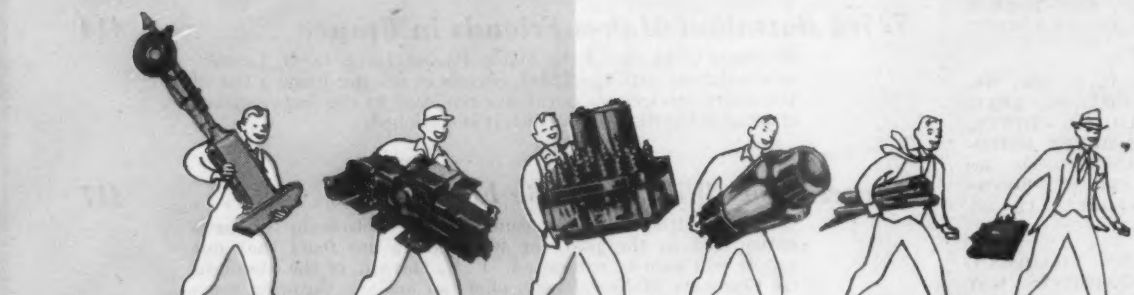
*The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service*


★


*PRINTED IN U. S. A.*

# Progress *in signaling requires*

## GOOD TEAMWORK



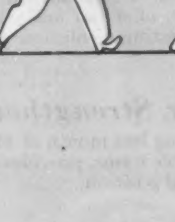
Every development in modern signaling is the result of cooperative effort of many persons, each with special qualifications in his own field.

Consider modern coded systems of Centralized Traffic Control for example. These are the result of research and development engineering in many different fields. Exact knowledge of necessary system characteristics and sound mechanical and electrical engineering were supplemented by laboratory work in electronics, field tests of communication facilities and design of apparatus for reliable and economical service.

In addition, these coded control systems had to be effectively coordinated with other elements which were available—many different types of signals, switch machines, track circuits and a variety of controlling devices.

Obviously, no one man could have the necessary specialized knowledge in all of these fields—but our trained and experienced staff of experts made the development possible.

This teamwork of experts is characteristic of The Union Switch and Signal Company, and is one of the major reasons for our 64 years of leadership in railway signaling.

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# The Week at a Glance

**PLANNER'S TECHNIQUE:** This week's leading editorial focuses attention on certain of the quiet and subtle methods by which one skillful and superficially plausible preacher of a fallacious economic philosophy seeks (with no little success, apparently) to indoctrinate the unwary reader with his individual brand of authoritarianism. A technique that tends to blind the reader's perceptive processes with the glitter of a highly polished and many-faceted surface objectivity often proves effective, it is argued, in imperceptibly and surreptitiously introducing into that reader's accumulation of basic beliefs just those corruptive elements by which he is persuaded to desire the particular variety of "progress" with which that writer strives to replace our heritage of political freedom and economic opportunity.

●

**REPORT IN 28190:** Taking into account the "imponderables" as well as the voluminous statistical data incorporated in the record, the Interstate Commerce Commission, after six years of travail, has brought forth its report in the investigation of rates on new automobiles. Even though the issues have an academic tinge at the moment, because of the lack of new automobiles to transport, the commission saw fit to bring the proceedings to a conclusion, at least for the present, by expressing its willingness to leave undisturbed nearly all the existing rates, rules and practices developed through years of unrelenting competition. It did, however, condemn those rail rates which exceed 75 per cent of first class.

●

**COURTESY LESSONS:** A short sound and color film, titled "The Time Is Now," is being shown to all Santa Fe employees as a means of getting across to them the idea that a very essential part of their jobs is to foster, in the memories of their customers, happy impressions of the railroad and its personnel. An editorial this week points out how discourteous treatment by one employee of one road can create a disgruntled attitude toward all railroads on the part of the offended individual, and from that premise argues that all railroads should put courtesy to patrons in an important place in their employee training programs.

●

**CUT-BACK:** Reductions in second quarter critical material allocations made by the War Production Board have hit the railroads hard, as a news story in this issue reveals. At the very time when Washington is warning the roads that military traffic this year will exceed anything they have seen so far, even if the European war should wind up fairly soon, the powers that be continue their parsimonious treatment of the carriers' requests for materials with which to do the work outlined for them. Over-all basic steel tonnage allotments have been cut about 30 per cent. Only 417,000 tons of rail will be provided. Only 7,500 freight cars can be built from the steel allocated for this purpose. The long awaited green light for passenger car construction has gone dark again, and the prospect for relief in that respect seems dim indeed. Meanwhile, cars and locomotives and fixed plant continue to wear out at unprecedented rates—but the railroads can worry about that.

●

**NEW DRAFT PROBLEMS:** Revised procedures for obtaining draft deferments for "indispensable" railroad employees under 30 years old have been worked out in Washington, as noted in the news pages. Explanations of these requirements were accompanied by warnings that few men, indeed, will meet the test of indispensability. Roads already handicapped by manpower shortages will have to adjust themselves to even tougher times ahead, it appears.

●

**3 M'S OF MAINTENANCE:** How men, materials and machines fit together to produce an effective roadway maintenance organization, and how that organization in turn is interrelated with the other departments that make up a railroad, is discussed in an article on page 412 by the New York Central's engineer maintenance of way. The particular responsibilities and tribulations that are the lot of the roadway maintenance man are outlined in perspective based on his primary obligation to keep the track always safe for the trains to run.

●

**AID TO UNDERSTANDING:** Reasoning that railroad employees—particularly those in supervisory and executive capacities—should have a clear and sound understanding of the social and economic principles that largely control the behavior of the civilization around them, and appreciating how many of them may have lacked opportunity to obtain such understanding, the top man on one important road has taken steps to make a simply stated presentation of these principles available to those of his employees who are in positions of leadership. What he has done is the subject of an editorial in this issue.

●

**SPECIAL PRIVILEGE BILL:** While not taking a position in opposition to general social security legislation, the railroads express themselves as very definitely opposed to special legislation which affords their employees benefits and privileges far more generous than are enjoyed by industrial workers generally, and at a cost to the employers far greater than must be borne by industry in general. Entering this week into a thorough analysis of the proposed "liberalizing" amendments to the railway employees' retirement and unemployment insurance laws, General Solicitor Alderman of the Southern told the House committee considering this secretly concocted program that the best possible provision for social security is "good jobs at good wages." The proposed legislation would inevitably impair the ability of the railroads to provide that kind of security, he suggested. Apart from the very serious doubts that they entertain as to the financial integrity of the contemplated system, the railroads differ with its proponents over its basic principles. Mr. Alderman's argument is reported in the news pages.

**A LETTER FROM FRANCE:** Conforming to its traditional tendency to emphasize the unusual, the press recently has fixed an unflattering light on the unpatriotic behavior of certain Military Railway Service personnel overseas, while almost nothing is being said about the zeal and energy and courage with which the very great majority of Army railroaders have pitched in to get the war over with as soon as possible. Still another aspect of their little heralded but indispensable contribution to history is effectively depicted in this issue in an article based on a letter from the adjutant of the 723rd Railway Operating Battalion, in which he puts particular emphasis on those little, spontaneous acts that reveal the humanitarian and charitable instincts which have impelled so many of them to rise to repeated opportunities to prove their warmth of heart.

●

**ENOUGH OIL:** An optimistic analysis of the Diesel fuel situation in the post-war period is presented this week in a feature article by F. C. Davern, an executive of Standard Oil of New Jersey, who has undertaken to answer a question which inevitably has disturbed railroad officers faced with the necessity of deciding what use they should make of Diesel-electric locomotives. That question is: Will good Diesel fuel continue to be available at a reasonable price? Disputing some prophets of imminent disaster, this well-informed writer expresses the view that oil will be available to meet all possible needs for several centuries to come. With convincing detail he suggests that technologists will be able to tailor the fuels of the future to fit the specific requirements of the Diesel in the most economical and efficient fashion.

●

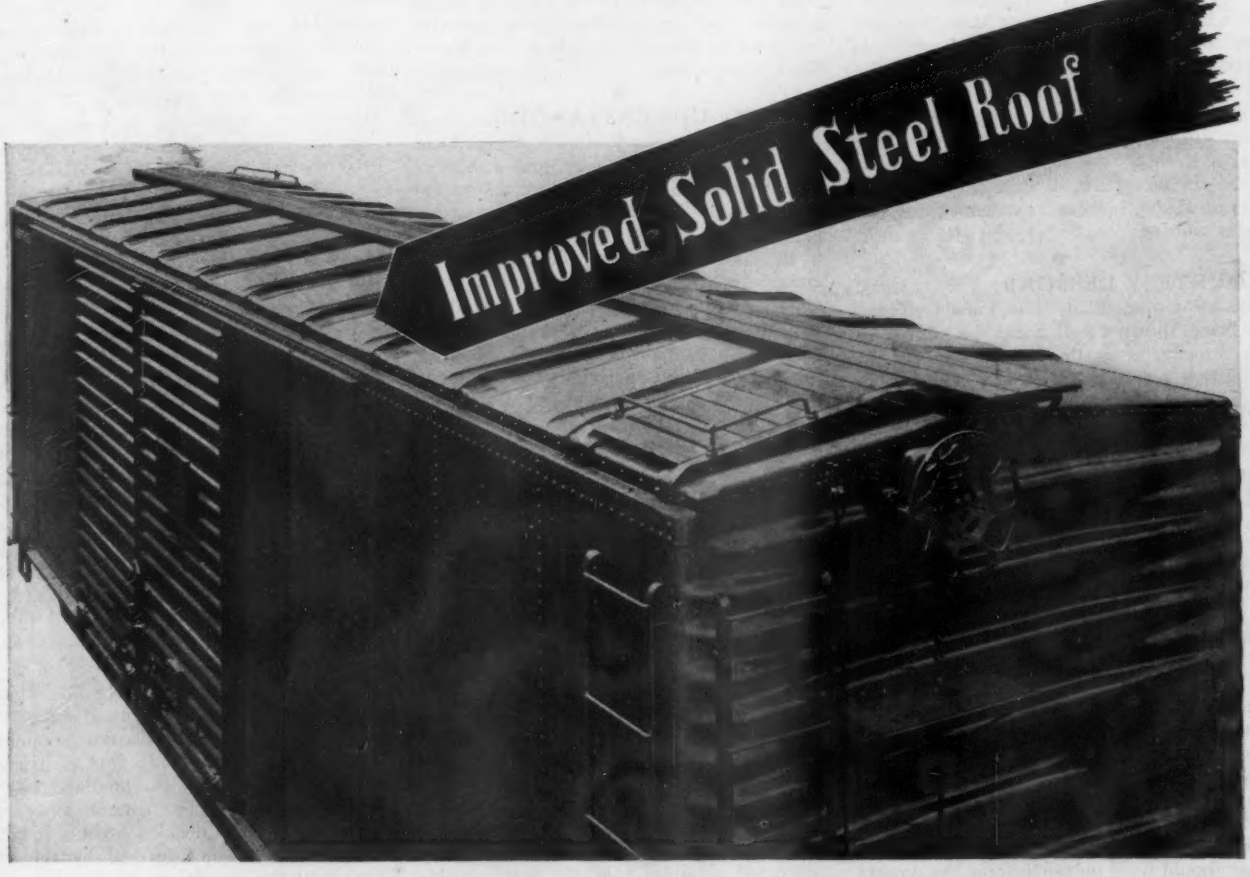
**ALUMINUM USERS?:** The president of Reynolds Metals Company this week told a Senate committee, as a news item herein reports, that the railroads are going to need 100,000 new freight cars per year in the immediate post-war period. While obviously hopeful that most of these cars might be built of aluminum, he tempered his predictions in that respect with the comment that some form of per diem concession would have to be effected to encourage such use of aluminum.

●

**FARE INCREASE WON:** The Illinois commerce commission's refusal to permit railroads to increase intrastate commutation fares to keep them in line with interstate fares has failed to stand the test of legal proceedings. The commission erred, the courts in effect decided, because it failed to consider evidence offered by the carriers that the operations in question were conducted at a loss, even though the operations of the whole system might be profitable. It also was found in error, as reported in the news pages this week, in endeavoring to evade jurisdiction on the ground that the O. P. A. hadn't been notified that the intrastate increases were contemplated. The railroads, the courts concluded, are still entitled to due process of law.

# *Car Life Protection*

## OUR REPAIR ORDER RECORDS SHOW THAT 99% OF IMPROVED SOLID STEEL ROOFS FURNISHED WILL BE IN SERVICE FOR THE LIFE OF THE CAR.

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●

# Devil's Advocate

A political faction is fortunate in having a spokesman who disarms its critics by admitting and even castigating the party's obvious faults, but who then progressively belittles these shortcomings until, at length, he beguiles his audience into accepting his orthodoxy as reasonable. Such protagonists win converts and votes. The late William Allen White and Senator Borah frequently played this role in years past for the Republicans. There are any number of eminent Southern statesmen, who, gaining warm admirers by their critical candor in eleven months in the year, manage to justify voting the Democratic ticket straight—P. A. C. and all—when November comes around. Stuart Chase, popular writer on economic subjects, has with great cleverness essayed a similar Pied Piper role in behalf of the New Deal totalitarians in a book entitled "Democracy Under Pressure."*

### "Big Government" Hit, Then Embraced

On its face, the theme of this book is a timely and specific attack on the widespread class warfare, pressure group politics and intolerant factionalism which augur so ill for this country's economic and political future—evils which the New Deal did not invent, but which it took over as pygmies and nurtured into leviathans. "The delicate veins, nerves, tendons of an interdependent community," writes Mr. Chase truly enough, cannot continue to exist with a lot of self-seeking "pressure boys" continually "kicking their way" through the organism. He then goes on to list with considerable accuracy some of the cardinal sins of the pressure groups—protective tariffs, monopolistic wage levels, high prices and limited production. He even mentions "big government" and the danger of the "authoritarian state."

Only the wary will note, however, after he has won the interest and confidence of the skeptical by his "big government" warning, that he gradually deflates that bogey until, at the close of his argument, he blandly leaves his readers with this same "big government" under the pseudonym of "managed economy" as his remedy for all our political and economic distempers. So certain is he that his subtle build-up for a governmental colossus has won his readers' minds that he even makes bold near the end of his essay to poke some ridicule at those who still doubt that "a managed economy is compatible with political democracy and civil liberties." With all his quotations from authorities—the trappings of objective scholarship without necessarily the substance—Mr. Chase significantly fails to mention F. A. Hayek† and Ludwig Von Mises†, the world's foremost authorities on the subject of state control of the economy, who have incontrovertibly demonstrated, as well by personal experience as by precise logic, to what a Nazified end a "managed economy" inevitably leads.

Also bearing on the trustworthiness of Mr. Chase's scholarship is his pillorying of the Association of American Railroads as one of the nation's principal big business pressure groups—neglecting to note that the Association does not at all resemble the other associations he names in this category, and is in fact primarily a federation of technical organizations, which have no propaganda or "pressure" functions whatever. He belittles railroad concern over "subsidies" to rival means of transportation, and says that, by the land grants, the railroads "have not done so badly in the subsidy line themselves."

With Mr. Chase's skill in getting information, good intentions cannot very well excuse him for thus once more belaboring this poor old "land grant" straw man. As an accountant, he knows that an advance of funds repaid many-fold, as the railroads have repaid the land grants, is no longer an advance. Curiously, this book about pressure groups neglects to draw attention to possibly the most successful of any of them, namely the one which just got $1½ billion out of Congress to be used as an inducement to state governments to put up another $1½ billion.

### An Attack on "Big Labor"

Mr. Chase is an entertaining writer, and an informative one to those sufficiently alert to circumvent his agile casuistry, and to remember that not enlightenment but proselytism is his purpose. He is unusually specific in drawing attention to the economic and political misdeeds of organized labor, a disclosure which seems to be making the union press quite unhappy. But the New Deal does not need to worry about unionists' complaints; it is doubtless confident from experience that the P. A. C. will deliver their votes on election day whether they like Mr. Chase or not. Meantime, the rough-handling the unions are given in this book is probably intended as bait for a large segment of the middle class toward which, evidently, Mr. Chase is discharging the functions of a missionary for New Dealism. There are well-meaning people who like to consider themselves readers of "serious" books, without attendant hard labor; and Mr. Chase caters to this market with great skill. The jacket on this book proclaims the writer as "America's most widely read author on economic subjects," which may in some measure account for the fix which America is in economically.

---

* Published by the Twentieth Century Fund. Price $1.

† Their works have been discussed editorially in these pages, most recently in our issues of November 4, page 679, and November 25, page 803.

## For Better Understandings and Improved Relationships

The chief executive of a railroad which has about 2,000 "key men"—officers, supervisors and foremen—plans to place in the hands of each one of them a copy of a simple treatise on economics. This is part of an educational effort which has been developed over the years, and he considers it as an important forward step. Why?

These men are primarily responsible for the safe and efficient operation of a great railroad. They come intimately in contact with the public, including shippers, travelers and government representatives; they have under their direction many thousands of workers of all sorts of skills and crafts. It is a complex business.

Our people lived a comparatively simple existence during the early development of the railroads. With the more intensive industrialization, topped by mass production and scientific farming, standards of living have advanced at a steady rate and today we live in a most involved civilization, in which government is continually assuming a larger part. But government in a republic such as ours is or should be controlled by the electorate, and if the citizens are to exercise their power wisely they must understand the principles of economics—the motives and social forces which make the complex machine of production work smoothly, but which, if interfered with, will make it operate badly or stop altogether. Certainly the "key men" in any business or community should have a familiar understanding of these principles if they are to lead wisely.

For five years two men, Fred G. Clark and Richard Stanton Rimanoczy, have been conducting a radio quiz debate. They have brought together on these programs liberals and conservatives to "dissect and analyze the roots of America's economic controversies." Apparently they realized more and more that something needed to be done to reduce the principles of sound economics to a simple basis, which could readily be comprehended by the average citizen. The outcome is a book, "How We Live" (Van Nostrand), which presents these principles in a simple form. In large, bold type, with simple and easily understood illustrations, and in less than 6,000 words, it outlines these principles.

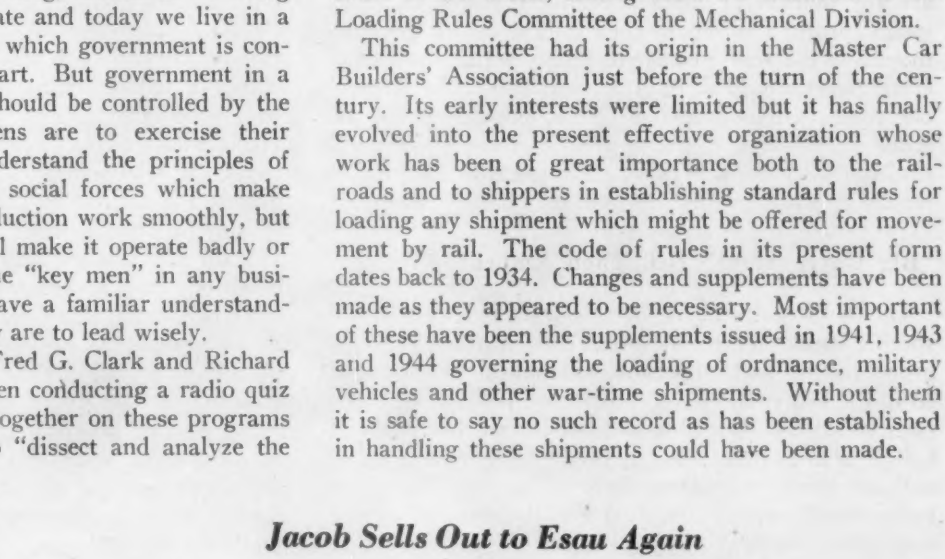
And so, because there is so much needless and disastrous friction in business and industry, largely due to the fact that people do not understand these matters which so intimately affect their everyday life and relationships, one railroad executive is bringing the book to the attention of his associates in the belief that, coupled with other educational measures, it will make for better management by making more widely known an understanding of the social facts on which successful cooperative endeavor within the organization and in its relations with the public must be based.

## The Loading Rules Committee

Instances of effective cooperation between the railroads and various government agencies, particularly the War and Navy departments, have been numerous during this war. The great volume of military supplies moving without delay represents a real triumph in planning and is proof of a lesson well-learned from the chaotic conditions which prevailed during the last war. No individual or group can be singled out as being responsible for the present highly satisfactory handling of war-time freight and its expeditious movement. Many should and do share in the credit, among them the members of the Loading Rules Committee of the Mechanical Division.

This committee had its origin in the Master Car Builders' Association just before the turn of the century. Its early interests were limited but it has finally evolved into the present effective organization whose work has been of great importance both to the railroads and to shippers in establishing standard rules for loading any shipment which might be offered for movement by rail. The code of rules in its present form dates back to 1934. Changes and supplements have been made as they appeared to be necessary. Most important of these have been the supplements issued in 1941, 1943 and 1944 governing the loading of ordnance, military vehicles and other war-time shipments. Without them it is safe to say no such record as has been established in handling these shipments could have been made.

***Jacob Sells Out to Esau Again***



Late in 1940 representatives of the A. A. R. approached officials of the War and Navy Departments and suggested that the preparation of loading specifications to cover the various units of equipment which might be offered to the railroads for movement would be desirable. Joint studies were then undertaken and a supplement to the rules issued in April, 1941. This was distributed to all railroads and Army installations and made a part of the Officers' Field Manual. Later changes have been similarly handled. It is interesting in this connection to note that the railroads initiated this work more than a year prior to our entrance into the war and issued the first instructions about six months before Pearl Harbor. No one can possibly estimate how much confusion and delay was saved in the early days of the war because this committee, accepting its responsibilities and anticipating a need, had made it possible for war loadings to be made according to standard plans.

Probably no honor will be paid to any of the members of the committee but they can have the satisfaction of knowing that theirs was a job well done which certainly has contributed much to eventual victory. The uninterrupted flow of properly loaded cars to all of our ports is proof of that.

## Corrosion and Electrolysis

Excellent work on the cause and prevention of corrosion of metals has been and is being done by the Electrical Section, Engineering Division, A. A. R. (In a previous comment this was erroneously credited to the Electrical Section, Mechanical Division.) The studies made show the relative corrosion resistance of bronzes, stainless steel, aluminum, and various kinds of iron and steel used for overhead conductors. Work now in progress on buried metals proves the ineffectiveness of concrete as protection of metal against electrolysis caused by stray currents and shows that coatings of asphalt, for a limited time at least, greatly reduce current flow. This work dovetails nicely with tests made by the Bureau of Standards which show that steels high in nickel and chromium are strongly resistant to soil corrosion and that coatings of zinc or Bakelite will give protection for several years.

The results of studies on electrolysis and corrosion of underground power system cables made by the Consolidated Edison Company of New York were reported in a paper by L. J. Gorman, presented in New York at the winter meeting of the American Institute of Electrical Engineers. The paper, which deals with both cables and pipes, is based on work done over a period of years in a location where there are many variations in earth potentials and soil conditions.

The report refers to the well-established fact that corrosion of metal in the presence of moisture results from local galvanic action. The statement is made that this is the cause of widespread corrosion of underground structures which in many cases constitutes more serious problems than stray electric currents. Variations of soil structure and low resistance of soil in contact with the metal apparently accelerate the destructive action. Cathodic protection and drainage, it is said, can ordinarily be used to dispose of troubles caused by stray currents. As in the case of the Electrical Section studies, the use of asphalt has been found effective, a coating of this material supplemented with fabric tape having given adequate protection to lead-covered cables for a period of ten years.

Loss of metal in railroad service due to corrosion represents a huge total, and the development of means of reducing such loss even by a small percentage warrants considerable time and effort. The work done by the Electrical Section has been extremely valuable and it is to be hoped that further studies, coordinated with work being done by other organizations, be continued.

## Making War-Time Customers Permanent

An important recent contribution to employee training programs is a moving picture, entitled "The Time Is Now," produced by the Santa Fe. This film is in technicolor, with sound, and it will be shown to every Santa Fe employee, including even operators at remote desert and mountain locations. The presentation requires between 10 and 15 min. and the theme is the importance of courtesy to patrons now as the most valuable preparation for retaining a large volume of the present railway freight and passenger traffic after the war. The outstanding characteristic of this film is that it deals with specific problems rather than generalities. By showing discourtesies in cigar stores, butcher shops, etc., it brings the point home more forcibly, as all employees have experienced similar annoyances themselves.

These outside incidents of discourtesy are cleverly related to parallel examples of discourtesy by railway employees so as to make the lesson much clearer. No attempt is made to disregard the fact that the railway customer is frequently unreasonable and asks what seem silly questions, but it is pointed out that such questions are not silly to the person asking them and, further, that courtesy goes a long way toward placating even the most unreasonable customer.

This effort on the part of the Santa Fe to spread interest in and habits of courtesy through its ranks now is one of a considerable number of such efforts made by various railroads which have been mentioned in this paper recently. These individual efforts are a fine thing, but the utmost effectiveness of the effort cannot be realized until all railways join in the campaign. People, especially those less familiar with travel and transportation, tend to look upon "the railroads" as a single entity; and discourtesy experienced on one line is often imputed as a fault to all the other railroads.

## Index to Volume 117

The indexes to the latest volume of the *Railway Age*, July to December, 1944, are now ready for distribution and copies may be had by those subscribers desiring them. Requests should be addressed to the Circulation Department, *Railway Age*, 30 Church Street, New York 7, N. Y. Subscribers who have in previous years made application for the index need not apply again; they will receive it as long as they continue to subscribe.

# *Maintenance Men Pull Their Weight*

**Top-notch performance calls for constant vigilance, initiative and cooperation with other departments**


***By S. E. ARMSTRONG***

*Engineer Maintenance of Way*
*New York Central System, New York*


THE maintenance of way department, confronted with many routine and special problems, is not an isolated unit on the railways. Necessarily, its work is closely interrelated with that of the other departments in a variety of ways. Close contact is maintained with the motive power and rolling stock department in matters relating to the effect of power on the track, such as counterbalancing and wheel weights and spacing. It is called into play in matters pertaining to clearances for power and cars in tight places, such as overhead bridges, tunnels, track centers, etc. Likewise, it is affected by such destructive forces as slipping drivers, brine dripping on the steel components of the track, and stack cinders fouling the ballast. Contact with the signal department is necessary not only on routine track signal work but also in connection with many intricate and complicated interlocking problems. In all of these matters, extreme accuracy of installations and of maintenance is of the greatest importance.

The maintenance department, of necessity, works in close harmony with the legal department on matters relating to right-of-way lines, highway crossings, power and transmission line crossings, checking violations and thereby eliminating controversy. Also, close contact is maintained with government agencies and with various state and municipal authorities. Likewise, the maintenance department works closely with the transportation department in arranging for or furnishing tracks or facilities to meet traffic requirements, and to determine whether certain types of unusual loadings can be transported safely and expeditiously, in addition to many other matters, such as the placing of slow orders where work is in progress, the handling of work trains, the movement of track motor cars, and the clearing of tracks at derailments, washouts, or other blockades.

## A Constant Battle

What are the functions of the maintenance of way department? The basic concept in the minds of many is that they are primarily that of keeping two "streaks of steel" tied together and in line so that the wheels can roll over them. While this is the ultimate aim and one of the principal functions, there are many less well known factors involved.

The roadbed, itself, is not a stable structure. Nature intervenes to make this impossible of full accomplishment. It has laid out the pattern on which the roadbed must be built, calling for the bridging of streams, the driving of tunnels, the crossing of swamps, the excavation of deep cuts and the construction of high fills. These conditions, with sink holes, quicksand, rock ledges, and all manner of subsoil conditions, change constantly from mile to mile.

Adding to such difficulties, the elements, including cloudbursts and snow storms, create many problems affecting adversely the stability of the roadbed structure. These examples indicate the many and varied problems that constantly confront the maintenance of way forces, all of which necessitate offsetting measures with speed and decisiveness, regardless of manifold other duties.

## Tracks Must Be Safe

The primary job of the maintenance of way department is to keep the tracks in safe operating condition at all times. The rails and track structure must be lined and surfaced periodically, the ties must be tamped, and particularly close attention must be given to the alinement and smoothness of curves, maintaining them to the mathematical superelevation and proper degree of curvature. New rail in sizable tonnages must be laid, involving the distribution of the requisite materials of many and varied types, as well as the removal of the released materials which are used for further service in relayer locations, or scrapped because of wear or other causes.

Further incidental work of the maintenance forces includes ditching for drainage, the strengthening of embankments, the widening of shoulders, the removal of rock in cuts and tunnels, the lining of tunnels, and the maintenance of bridges, trestles and culverts. In addition, there is the repair and upkeep of all types of buildings, of track water pans and roadside water stations, and of right-of-way fences and highway crossings. Indeed, there is a lot more to the job of maintenance of way than just those "two streaks of steel."

As in most of the other railroad departments, the maintenance of way department is made up of two component parts — *men* and *materials*, to which might well be added *machines*. Emphasis, naturally, is on the first—men—for it is largely through their combined efforts that materials and machines are used effectively. This very fact presents us with a difficult problem now and in the days ahead—the problem of maintaining a suitable force to accomplish efficiently and adequately the work which must be done.

Perhaps the most difficult phase of this problem is the development of men for leadership, particularly as supervisors and foremen. There is a certain lure or attractiveness in railroading. This must be capitalized upon to obtain and hold the interest of those now in or expecting to enter the railroad field. One of the questions paramount in the minds of men in this work is, "What are my chances for advancement—what does the future have in store for me?" In other words, what policy or plan does the railroad have for advancement and opportunity. It is important, therefore, to instill in the minds of those entering the service that a personal interest will be taken in their welfare; that their earnestness and skill in handling their jobs are being watched.

There is still another human side to the problem, and that is the one of friendliness and personal contact. Each man in an official capacity should realize that the men directly under his supervision have personal problems, and that he can frequently help them by showing a personal interest in their problems. This all adds up to creating conditions conductive to the most effective work by the men in the field.

## Improved Rail

The second major item in track maintenance is *materials*. Foremost of these is rail. Outwardly, the appearance of rail 25, or even 50, years ago was the same as that of today, with its shiny top and dull, rusty appearance in the web and base members of the section. However, there is a vast difference in design and in the structure of the steel. From the light, limber sections of the Eighteen Hundreds and the early part of the present century, there has been a large increase in the stiffness and carrying capacity of rail, both of which are now adequate to handle present-day traffic. Inwardly, the rail structure has been changed by progressive improvement from the days of wrought iron, through the Bessemer steel era, to the present, universal use of open-hearth steel. Not only has the composition been improved by careful studies but the method of steel-making has likewise undergone effective changes.

It is only within the last eight or ten years that another major step forward in rail manufacture has been taken,

This article is an abstract of an address before a recent meeting of the New England Railway Club, at Boston, Mass.

known as controlled cooling or thermal treatment. Approximately 7½ million tons of rail so treated are now in the tracks of the various railroads of the United States and Canada, representing, perhaps, some 40,000 miles of tracks. The effect of this thermal treatment has been to eliminate the cause of one of the most troublesome types of rail defects—the transverse fissure. The process eliminates the internal shatter of the steel structure, which has been the focal point for the subsequent development of these defects in service. The record of these treated rails to date is remarkable and highly encouraging. Records on the New York Central System, covering nearly 2,500 miles of tracks laid with these rails, shows a complete absence of failures of this type to date.

No one claims that this process is a cure-all for all types of rail failures, because there are other types and surface difficulties which it will not correct, or will correct only partially. In this category are failures of certain head types, web and base failures, and burned spots on the running surface created by the slipping of locomotive drivers. Others include the shelling or flaking of the steel on the gage corner of the head, particularly on the high side of curves, and the corrugated or washboard surface that is sometimes found on the top of the head. But all of these classes of defects are being studied actively.

## Better Crossties

In the past it has been possible for many railroads to obtain their ties locally. However, due to the depletion of the forests in many areas, it has become necessary for many roads to purchase ties at sources in other areas where timber is more plentiful, in many cases a considerable distance away from their lines.

Careful study over a period of years in the development of specifications for crossties has, no doubt, educated the producer in his desire and ability to furnish a better grade of tie. Today, due to the heavier weight of equipment and increased loadings, the larger sizes of ties are generally standard. Nearly all crossties are now treated with various preservative solutions, and careful attention is being given to the drainage of tie storage yards, to the proper stacking of ties for seasoning, and to the prompt treatment of the ties after seasoning. Better specifications for ties, proper handling, seasoning, adzing, boring and treatment—all have contributed materially to the increased average life of ties.

There are many and varied parts to the track structure besides rail and ties. These, including frogs and switches, have also undergone extensive changes to give greater rigidity, and thus produce a smoother riding track. Bridges, because of their great importance, must also be added to the list of responsibilities of the maintenance forces. Needless to say, they have been under constant study and have been strengthened and improved or, where necessary, replaced, to meet the changing conditions of traffic.

There is still another item which is of ever-increasing importance in this age of mechanization, and that is *machines*. The railroads are constantly on the alert for new equipment and devices which will prove of value in doing the jobs which are necessary. Even the older basic tools are regularly being improved. Where, formerly, section hand labor could do the work, power tools are now required. Rails have become heavier and longer, and to preclude the arduous task of handling them by hand, rail laying cranes have been developed. Again, where the track was formerly tamped effectively by hand, the type and depth of ballast now in use, and the action of locomotives and equipment at high speeds, necessitate more thorough and adequate tamping, which can be accomplished alone by power.

The necessity for refinement has created a demand for many other types of track tools, such as the adzing machine; pneumatic drivers for greater accuracy in the setting of spikes; preboring machines for field drilling; power wrenches and rail drills; the mole and large, on-track machines for cleaning ballast; the spray car for oiling the rail and fixtures; weed burners; chemical cars for weed killing; track liners; track shifters, etc.

There is still another line of roadway equipment upon which a start had been made prior to the present emergency, and which will, undoubtedly, see greater use in the future. This is improved roadway machinery for grading and ditching work, such as scrapers, draglines, spreaders, clam shells, and other types. One of the more important phases of work in the future will, no doubt, be the general strengthening of the roadbed by widening the shoulders and embankment, improvements in cuts, and increased and more effective drainage.

## Post-War Needs

The post-war era holds many unpredictables. The railroads are attempting to anticipate and analyze future trends in volume and type of traffic, and the ability of the plant to handle it. Every effort will be made to serve the public to the fullest extent. This, naturally, will increase the problems of the maintenance of way department, to insure not only adequate safety but to avoid or eliminate anything which might restrict faster schedules. Consideration is being given to eliminating curves or reducing their degree, and to the avoidance of slow orders, whether of a permanent or temporary nature. This involves careful co-ordination of the efforts of the field forces to permit them to carry out their work, with the least interference to traffic.

The standard of the track structure necessary depends upon the types of power and equipment employed, as well as upon operating speeds. Many years are required to change over from a lower to a higher standard. However, with our present heavier rail and fastenings, ample strength is available to handle the situation in prospect. The emphasis will then be on further refinement, particularly in the roadbed itself, not overlooking the importance of maintaining good line and surface conditions at all times.

**Mexicans Have Helped to Overcome the Man-power Shortage on the New York Central, As on Many Other Roads**

# 723rd Battalion Makes Friends in France

**Not content with doing a good railroad job this operating outfit also helps relieve the distress of war's victims**

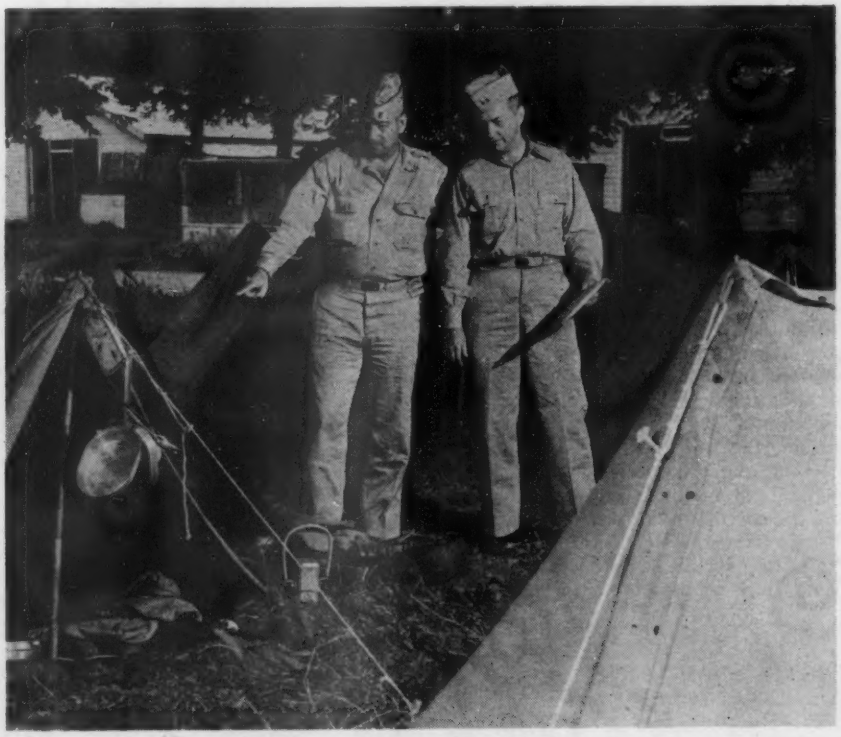
THE 723rd Railway Operating Battalion, Military Railway Service, is not only doing a job of railroading in France, but is engaging in other activities which must be welcome to the impoverished and recently liberated citizens of the district where it is stationed. Some information on these activities was given in a recent letter to H. H. Larson, superintendent of the Union Pacific at Omaha, from Captain G. O. Larmer, adjutant of the 723rd, and this letter follows, practically *in extenso*:

We of the 723rd Railway Operating Battalion—Union Pacific sponsored—realize that in the recent past there has been a great deal of adverse publicity that, judging from the many letters received from members of families at home by personnel of the unit, reflect adversely upon the Railway Operating Battalions and the Transportation Corps.

## "Best Damned Battalion"

We are proud of our unit and we are proud of our Union Pacific sponsor. I am, therefore, going to relate just a few of the things we have done since arriving in France with the hope that we will be judged on those accomplishments.

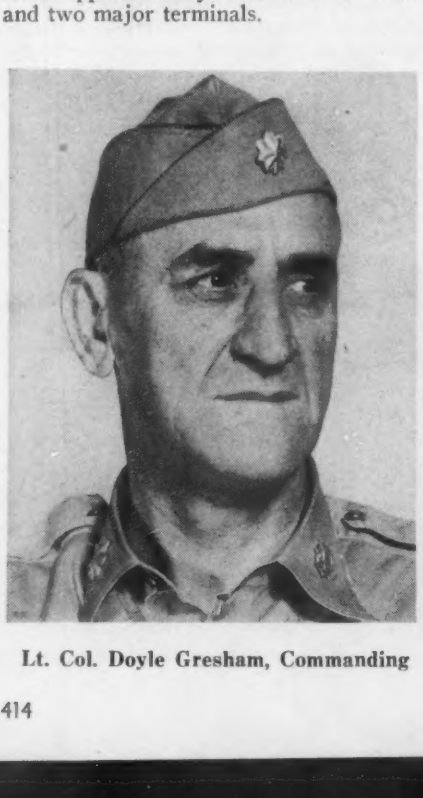
Our territory has been changed three times. Originally we operated a stretch of double track line about sixty miles long but, as we continued to improve and become the best damned Battalion in the European Theater of Operations, we were given the territory formerly operated by another Battalion so that we have approximately 120 miles of line and two major terminals.



**Captain Larmer (right) with 1st Lt. C. M. Columbia (Formerly of the Mech. Dept., West. Pac.) Examining Bivouac While the 723rd Was on Field Maneuvers During Training at Lincoln, Neb. Before Entering the Service Captain Larmer Was Chief Clerk to the Superintendent, Los Angeles Division, Union Pacific**

We have had two wrecks and in each instance the main lines were cleared in record time. We have had only one fatal injury—and this was due to an engineman striking a bridge girder—the old story of impaired clearance. In one wreck a total of 9 cars of ammunition and powder were destroyed and blew up but in the same wreck 21 cars were salvaged under hazardous conditions. It is possible that the men involved in that salvage will be cited. This wreck also claimed the life of a French railway worker.

(We are continually using more and more civilians to help in the enormous work of moving supplies.)



**Lt. Col. Doyle Gresham, Commanding**

**Maj. O. E. West, Executive Officer**

## God-send to a Widow

Under the caption "Rails Move Cargo"—"Stars and Stripes" of 3 February, 1945, reported as follows: "The 723rd Railway Operating Bn. moved an estimated 833,498 long tons of supplies over its 120 miles of rail during the four months ending December 31."

We do keep them rolling. But we also remember—perhaps it's because we are essentially Americans, that man does not live by bread alone. Hardly a day passes that some tragedy or problem does not arrive that appeals to our humanitarian and charitable natures.

For example, when the French em-

ployee was killed, our men sent one of the prettiest wreaths available. It was made of pottery, as fresh flowers here are unknown at this time of year. We have had sub-zero weather and much snow.

Our men also sent a box of food and candies and things out of their boxes from home. They also dropped loose change into a box which all added up to 10,500 francs—$210 in our money—which was a God-send to the young widow with her 6-weeks-old son.

### Village Soup Kitchen

At the approach of Thanksgiving, being truly thankful for having come so far out of the slough of despair that we found ourselves in early in September and October—our shelter in those days being pup-tents and mud-holes or bombed out villages—we gathered together to hear the President's proclamation read and to offer our own prayers of thanksgiving. Anticipating the generosity of our men, Headquarters went about the countryside and bought as many carrots, turnips, onions, apples and potatoes as possible—and many loaves of bread. This was grouped about our Battalion colors in the local "Salle de Fêtes" (which had been used at one time as a German Officers Club but which we use as a G. I. movie house and general assembly hall). A box was placed by the door and, on the way out of the service, those who wished to donate a few francs did so—coming within a few cents of covering the price of the food we had secured to decorate the hall. This was all turned over to the village soup kitchen where the poor eat.

### Honoring the Dead

Prior to Thanksgiving—on Armistice Day—at the invitation of the local people, our Drum and Bugle Corps, our National and Battalion colors and a company of our men armed with rifles participated in the local Armistice observance. Over here it is a great day of mourning—like our May 30. After paying these respects to the French dead, we marched to a nearby cemetery where lie the bodies of several unknown flyers—who fell just before D-Day. A ceremony was held over their graves, colors were dipped and our bugler played Taps. Later, a smaller group went to another isolated spot where a few other unknown Canadian, British and American flyers were buried and repeated the service of consecration. Then bits of information began to be volunteered and peasants would come to friends with dates, times and places where planes had crashed. One small girl had recovered a notebook, another some snap-shots and, as a result of this enterprise, we were able to turn over quite a bit of data to the Graves Registration who said they would no doubt be able to make positive identification of many of the fallen heroes.

(*Continued on page 416*)

# *Johnston Named President of I. C.*

**Becomes youngest president of a major railroad in the United States. Outstanding background of operating and traffic experience fits him for job**

WAYNE ANDREW JOHNSTON, general manager and head of the operating department of the Illinois Central, was elected president of that road at a meeting of the board of directors held in Chicago on February 23. He succeeds John L. Beven, who died suddenly on January 3, and, at the age of 47 years, becomes the youngest president of a major railroad in the United States.

Mr. Johnston was born at Urbana, Ill., on November 19, 1897, and was graduated from the University of Illinois in 1917. In the same year he entered railroading, which was to become his life's work, becoming a yard clerk of the Peoria & Eastern, and set about the impressive task of learning railroading from the ground up. During the next year he served as chief clerk to the general auditor of the Illinois Traction System, which is now the Illinois Terminal.

In 1919 Mr. Johnston started his career with the Illinois Central when he was employed as an accountant in the office of the division superintendent at Champaign, Ill. The chronological record of his career, up to January, 1938, at which time he was promoted to assistant to the general manager at Chicago, is as follows:

He was appointed assistant chief clerk of the general superintendent, Northern lines, at Chicago and in September, 1925, he was assigned to the office of the vice-president and general manager. In April, 1934, he was appointed general agent, traffic department, and in February, 1935, he was promoted to office manager to the vice-president in charge of traffic. Mr. Johnston was appointed general traffic agent in September, 1937, and assistant to the general manager in January, 1938.

### Rise Was Rapid

Indicative of his strong desire to know every phase of the industry to which he had dedicated his life is the fact that at this point Mr. Johnston sought for and acquired additional operating knowledge in the field by becoming superintendent of the Kentucky division, with headquarters at Paducah, Ky., from October, 1940, to September, 1941, before again re-entering the executive ranks. In the latter year he was moved back to Chicago as assistant to the vice-president and general manager. From then on his promotion was rapid and, in the course of the next three years, he was promoted to assistant general manager (March, 1942); assistant vice-president (April, 1944); and general manager (September, 1944).

During the days of the depression in the '30's Mr. Johnston saw his share of the financial struggle under which American railroads operated, and ably did his part in meeting and overcoming the harassing financial crisis in which almost every industry in the United States found itself following the stock market crash of 1929. And when, in 1941, he returned to Chicago as assistant to the vice-president and general manager, he saw a different kind of struggle—no longer that of striving to exist on meager traffic, but, instead, that of stretching out a transportation machine of limited magnitude to meet the needs of an almost limitless volume of business.

### Employee Training Advocate

Another important element of managerial experience to which Mr. Johnston has devoted a considerable part of his time is that of employee training, and toward this end, he has advocated for a number of years the importance to railroads, and employees as well, of the establishment of training schools. Years of planning finally resulted in the creation of such a school at Carbondale, Ill., which proved a success from the beginning and eventually led to the establishment of other similar organizations, including eight schools of telegraphy. An interesting description of this work as undertaken by the Illinois Central was given by Mr. Johnston before the forty-ninth annual meeting of the American Association of Railroad Superintendents,

held in the Stevens Hotel, Chicago, on May 9-11, 1944, and reported in the *Railway Age* of June 3, page 1072.

### A "Silver Beaver"

Despite his numerous duties and those which are automatically added with his election to the presidency, Mr. Johnston has always found time to exemplify an intense interest in civic, philanthropic and church affairs. He is a member of the National Executive Board of the Boy Scouts of America, a member of the Advisory Council of the University of Illinois, a member of the national executive board of the Young Men's Christian Association, and a member of the board of trustees of the Illinois Conference of the Congregational Church. Two unusual distinctions of which he is justly proud are the recent conferring upon him of the title of "Silver Beaver" by the Boy Scouts of America, in honor of his work on behalf of that organization, and the fact that he is known among I. C. railroaders as a man who knows almost every foot of territory in the road's system. Mr. Johnston's home is at Flossmoor, Ill., a suburb of Chicago.

### Present Finances Excellent

Mr. Johnston takes the reins of the Illinois Central at a time when, because of a policy of debt reduction that has been in effect for some years, the finances of the company are in excellent shape. In the six years, 1939 to 1944 inclusive, the funded debt was reduced $78,488,000, while the reduction in 1944 alone was over $23,600,000. Other statistics as to traffic and operating ratio of the I. C. were given in the *Railway Age* of January 13, 1944, page 151, in the sketch of the late President John L. Beven.

## 723rd Ry. Op. Bn.

(*Continued from page 415*)

Then came Christmas which promised to be cold and dreary to the French, many of whom were homeless and all more or less destitute. Again the men of the Battalion opened their hearts and purse-strings with each package from home and, as a result, every child in this vicinity received candy and gum—with the money contributed, toys were bought for the extremely destitute. In a nearby hospital are many sick and crippled children. They were included in the distribution and in the case of several families, who were just subsisting and that is all, boxes of food—bought with contributions—were given also.

But we have not forgotten our own beloved America and the folks back home. We have had our own "March of Dimes Across the Sea." Several large fruit-tins were inverted on a piece of wood, then painted red, white and blue—and a large slot placed in the top. A clever poster was made and placed around the tin. At a G. I. show on the President's birthday, 30 January, quite a few francs were contributed and on two days following, pay day, other francs rolled in to the tune of 12,224 francs or, when converted to postal money orders and forwarded to the Warm Springs Foundation—$246.

### Fuel and Clothing

During the bitter cold weather the class rooms of the local schools were like an ice-box. There is no coal and wood is at a premium. Without their horses (mostly taken by the Germans), without their railroads (now used for military service) and without their automobiles and fuel to operate them if they did have, transportation is the big problem. The city had two old horses which, with much human aid, could just about bring in enough wood daily to keep the schools at a temperature where the children could attend. The cold grew bitter and worse, one horse slipped and broke its leg. While this meant almost an end to their transportation, it also meant meat to some of the French. Horse meat is more dear to these people than a rare T-bone at home. They plodded along a few days and the other horse slipped and was so badly injured that it, too, had to be killed and eaten. What to do? An appeal came to Headquarters of the Railway Operating Battalion. Naturally we found ways and means to give them sufficient help to bring enough wood in each day from the forest about eight miles away to keep the schools open—and they are open. Fortunately, the weather is now getting warmer.

I could tell you about the many things we have done for the hospital located about five miles away, but I'll sum it up in trying to describe to you the genuine joy that spread over the face of the Mother Superior when we took to her the hind-quarter of a deer that we shot. It almost matched the pleasant expression of the Sisters at the orphanage when, just before Christmas, we took a large box of clothing. Now don't think I mean illegal clothing—such things as a beautiful woolen summer Class A uniform of yours truly, socks that were beyond mending but not beyond being ravelled and reknit into warm things for kids; torn woolen undershirts and pants that could not be patched but that could be converted into baby clothing.

### The Personnel

I should like to go on and tell you more and more of the things we have done but I think knowing the U. P. spirit that permeates our Battalion, you realize there is "never a dull moment."

I think you know Lt. Col. Doyle Gresham, our commanding officer, and formerly assistant superintendent at Kansas City; Major O. E. West, executive officer and formerly with the U. P. at Cheyenne; Captain T. W. McCabe, the trainmaster, from Pocatello; Captain E. O. Joest, our master mechanic from the shops at Omaha; Lt. A. E. Goff, our signal supervisor from the L. A. division; Lt. C. F. Gregory, yardmaster from Kansas City and formerly from the O. S. L. And we have some of the best enlisted men in the Army—such as Master Sergeant E. L. Schwope, the battalion sergeant major and a trainman from Cheyenne; Master Sergeant W. H. Guild, Jr., chief clerk and the son of our own W. H. Guild, Sr., at Los Angeles; T/Sgt. Raymond Smith, road foreman of engines from Salina; 1st Sgt. Leo J. Thorson, of our Company B, and many others.

Personally I learned many years ago that "Virtue is its own reward" but I was also raised on another good book that said "The laborer is worthy of his hire."

* * *

"Integration" in France.—While special pleaders at home are seeking to scare the uninformed public into the belief that co-ordination of railroad and truck transportation under common ownership and management would throttle transportation progress, the Army in France is proving that such co-ordination is perfection itself, from the point of view of the user of transportation service. In an article in the January "Harper's," it is explained how the Army—which must use the best transportation means available and cannot let prejudice determine its choice—divides its traffic between truck and rail. Trucks are used where railways have been bombed out, and for short hauls where flexibility is required—but railroads are given the job every time wherever they can be placed in effective service for the longer hauls. Try and tell any top Transportation Corps officer that "integrated" management of railroads and trucks is a disadvantage to the shipper!

Truck Operating Efficiency.—The "Harper's" article goes on to tell about the famous "Red Ball" truck highway, improvised across northern France until adequate railway service could be re-established. Traffic was in one direction only. No pleasure traffic got in its way. Speed was uniform. Each convoy of trucks had a supervisor in charge, riding a jeep, to prevent straggling. Repair outfits patrolled the roads, and truck convoys were kept track of by dispatching, resembling the dispatching of trains. The result was truck service of a quality and quantity which must excite the envy of the domestic fleet operator at home. Is it altogether certain that the truck operators have made a good bargain for themselves by sharing public highways with other traffic? True, they get the use of a costly facility at a bargain price—but they cannot control the traffic in a manner to insure maximum truck operating efficiency. Privately-owned truck highways where all traffic could be regulated in the interest of efficient truck operation might not be as costly in the end as the road-use arrangement truck operators now enjoy at such expense to the taxpayers and other highway users.

# *Diesel Fuel—Will There Be Enough?*

**With the tremendous consumption of petroleum products anticipated in the post-war world there are fears that our supply will be exhausted. This analysis throws light on the future and suggests a solution**

*By F. C. DAVERN*
*Manager, Railroad Sales Department*
*Standard Oil Company of New Jersey*

THE highly important part that the Diesel engine has played in the war has established it more firmly then ever as a producer of power. Diesel engines are performing on every military front, on land and—even to a greater extent—on the sea. The Navy, largest single user of Diesel marine propulsion, has increased its Diesel horsepower from 150,000 at the close of World War I to 33,000,000 at the present time. In fact, the Navy is installing Diesel horsepower at a rate greater than steam horsepower.

There is no doubt that when the war comes to an end Diesel engines will find increasing use in commercial stationary power installations, in merchant vessels, in railroad locomotives, and in buses and trucks.

Railroads are expected to be among the leaders in conversion to Diesel power. Locomotive Diesel power, which about equaled electric locomotive power in 1940, even now is three times as great as electric locomotive power, and it still represents approximately but five per cent of locomotive steam horsepower.

A high volume of Diesel horsepower means a high consumption of Diesel fuel. In 1941 26,000,000 barrels of Diesel fuel were burned; this being four per cent of the motor fuel and about two per cent of the total petroleum consumed in this country. American railroads accounted for only one-fourth of this Diesel fuel.

## Adequate Petroleum Resources?

The foremost question in the mind of the railroad operator is: "Will there be a sufficient quantity of good quality Diesel fuel if I adopt the Diesel for my railroad?"

The operator has been made particularly conscious of what a possible oil deficiency would mean because the military needs for aviation gasoline, Diesel fuels and other derivatives have placed excessive demands on the petroleum industry and have brought about temporary shortages for civilian use. His confidence in a continuing petroleum supply has been weakened further by public statements to the effect that we have in this country only enough fuel to last us some 14 years.

According to comprehensive studies by geologists of the Standard Oil Company (N. J.), there are no justifications for anticipating an early exhaustion of oil reserves. These studies, taking into account both proved and potential resources, indicate that the probably ultimate oil resources of the globe, including synthetic oil, should be sufficient to meet all possible needs for the next several centuries.

On the basis of per-acre output of petroleum from the area already proved for production, the United States should yield at least another 65 billion barrels, in addition to the already discovered 44 billion barrel reserves. Territories immediately adjacent to the United States promise to yield another 100 billion barrels.

## Not Quantity but Quality

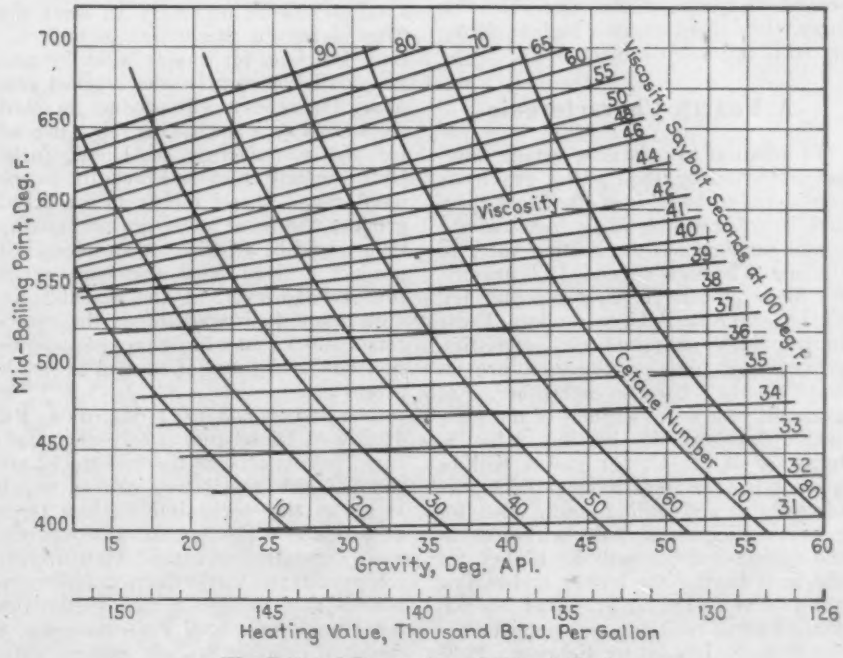
For the Western Hemisphere as a whole, then, there is prospect of at least 200 billion barrels of oil, enough to provide products to power and lubricate America for at least two or three generations, at the present rate of consumption. This, moreover, is only natural oil and does not include the almost unlimited supplies of liquid fuels which could be obtained by known methods from our enormous supplies of coal, natural gas, and oil shale, should economic conditions dictate.

Thus, there is no foundation for the fears of a lack of oil. There does, however, remain the question as to whether or not Diesel fuels of adequate quality will continue to be available in sufficient quantity.

The quantity and cost of Diesel fuels will be influenced to a marked degree by limitations imposed by specifications and by the refinery processes available. In setting the specifications of fuels, consideration must be given to the extent to which specifications may limit supplies and increase the cost of the product.

## Boiling Range

Diesel fuels are made from petroleum fractions boiling between about 300 and 700 deg. F. The exact boiling range of any given fuel will depend upon the service for which it is to be used. Today railroads are using two types of Diesels—the two-stroke cycle and the four-stroke cycle intermediate speed engines. For these, railroad engineers believe the boiling range should be between 350 and 650 deg. F. to give satisfactory service. The boiling range is a measure of the volatility of the fuel, the low boiling products being the most volatile and the high volatile products the least volatile. The mid-boiling point of a fuel (the temperature reading when 50 per cent of a sample has distilled in a standard distillation test) is one of the most fundamental factors in fuel volatility, since it




**The Related Properties of Diesel Fuels**

is closely related to the tendency to cause smoking and general engine fouling in certain types of engines. For specification purposes the minimum flash-point is generally at 150 deg. F.

## Yardsticks of Fuel Quality

"Ignition quality" of a fuel affects starting an engine, roughness of operation, fuel consumption, smoking and engine fouling. It is measured by "ignition delay," i.e., the delay between the time the fuel is injected into the cylinder and the time ignition occurs. Ignition-quality rating is generally expressed in terms of cetane number by comparing the ignition-delay of the fuel with a fuel composed of a blend of the pure hydrocarbons, cetane and alpha-methyl naphthalene. The cetane number of the fuel represents the percentage of cetane in a blend that gives the same performance as the fuel. In the absence of special processing, the cetane number of a Diesel fuel usually depends upon the crude source from which the fuel is derived and it may vary from over 60 for paraffinic types of oils to about 30 for the naphthalenic types. Different types of Diesel engines require different cetane-number fuels and the cetane-number specifications should conform to engine requirements. Factors in engine design affecting cetane-number requirements are compression ratio, type of combustion chamber, injection system, normal operating speed and load.

Viscosity determines the flow and atomizing characteristics of a fuel. Too low viscosity may cause leakage of fuel and loss of power. When the viscosity of the fuel is too high, raised beyond limits determined by design and operating conditions of the engine, smoking and fouling of the engine have a tendency to increase. The usual viscosity specifications for medium- and high-speed engines are between 30 and 45 seconds Saybolt at 100 deg. F. For large, slow-speed engines higher viscosity fuels are often preferred.

## A Fourth Characteristic

In addition to volatility, cetane number and viscosity, the A. P. I. gravity is considered to be an important fuel characteristic because it is an index of the cetane number and the heating value of the fuel. The higher the A. P. I. gravity, the higher the B. T. U. per pound, but the *lower* the B. T. U. per gallon. These four fundamental fuel characteristics, governing engine performance, are always closely related to each other. For example, in a series of fuels of the same cetane number, the heating value in terms of B. T. U. per gallon will be greater for the fuels having the higher viscosity or mid-boiling point. Also, for a series of fuels having the same gravity, the cetane number will be higher for the fuels having the higher mid-boiling point or viscosity. A graphical illustration of these relations was published in the S. A. E. Journal for February, 1940. By utilizing this chart, the cetane number may be quickly estimated from such easily determined characteristics as A. P. I. gravity and mid-boiling point.

Another important characteristic of a Diesel fuel is its sulphur content. During the combustion of the fuel, sulphur compounds are apt to be converted into sludge-forming sulphur oxides. The amount of sulphur that can be tolerated in a Diesel fuel is still partially a matter of opinion. However, too rigorous a specification of the sulphur content, as for any characteristic, can defeat its own end by limiting the availability of stocks from which the fuel can be made, or by forcing the cost of refining beyond an economical point. Sulphur specifications for present locomotive Diesel fuel generally call for a one-half of one per cent maximum sulphur content, while the Navy Diesel fuel specifications permit a one per cent maximum sulphur content.

The ability of a fuel to remain fluid at low temperature is determined by its pour point. Diesel fuels, to be used at low temperatures, must possess an adequately low pour point to enable them to remain fluid enough to flow through the engine system under these conditions. However, too restrictive a pour point needlessly limits the supply of high quality Diesel fuel, since the fuels of highest ignition quality generally show the highest pour point.

## Future Problems of Refiner

In the future the petroleum refiner will find himself facing an enlarged demand for Diesel fuels and at the same time find it necessary to make other use of stocks suitable for Diesel fuel manufacture. He will find that the high-cetane number paraffinic stocks must be supplemented with more naphthalenic stocks of lower cetane number in order to be able to supply the demand. Feed stocks that could be used for Diesel fuels will be diverted to other uses. This diversion will be necessary to meet the demand for the production of high octane gasoline for motor vehicles and planes. To be sure, besides cracked gasoline, the refiner will produce cracked stocks that have the boiling range needed for the manufacture of Diesel fuels. Unfortunately cracking lowers the cetane number and Diesel fuel from a cracked product will be of lower ignition quality than would be a fuel from an uncracked product derived from the same crude source. However, if the demand for high-cetane fuels warrants it, these low-cetane stocks may be improved in ignition quality by one of several available processes.

One process adapted to improving the quality of Diesel fuel is solvent extraction. In this process the fuel stocks are treated with a selective solvent which separates the stocks into various types of products. The solvent removes the more aromatic low cetane, high sulphur compounds and leaves the paraffinic compounds that have better characteristics for Diesel fuels. Solvent extraction, a standard refining process, utilizes various materials as selective solvents depending upon the oil stock being treated. Sulphur dioxide would be the solvent most likely to be used for Diesel fuel production as it is already being employed regularly and successfully to refine petroleum fractions related to Diesel fuel oil stocks. Naturally some loss of oil occurs in the solvent extraction process and, thus, the cost is raised to some extent. Nevertheless the improved quality of the Diesel fuel offsets the increased cost because of the better and economical operation which will result.

## Hydrogenation

A second method of improving the quality of a Diesel fuel stock is hydrogenation. Hydrogenation is a catalytic process, carried out at high temperatures and under high pressures, by which hydrogen is introduced into the oil molecules. The chemical changes that take place raise the quality of the oil for use as Diesel fuel. The process requires sturdy equipment designed to withstand the temperatures and pressures encountered, and at present the hydrogenation equipment is being used in the manufacture of war products other than Diesel fuel. With relaxation of restrictions on metal for construction after the war, the process can become available to Diesel fuel manufacture when required. Hydrogenation has the advantage over solvent extraction in that it gives greater yields of oil and that it brings about more complete elimination of sulphur.

Still another method of attaining high cetane number will be at the disposal of the refiner. This method will be the use of "ignition promotors." A large number of substances are known and patented which, when added to a Diesel fuel in small amounts, effect significant increase in cetane number just as tetraethyl lead significantly increases the octane number of gasolines. Petroleum refiners realizing the probably future importance of ignition promoters are not neglecting research in this field. It is reasonable to expect that new ones will be discovered superior to any now known.

While Diesel fuels are needed in increasing quantities, the wide and varied uses of Diesel power have radically modified views for fuel requirements. However, progress in petroleum technology will assure the development of superior high quality Diesel fuels in the future.

* * *

B. & O. Praises American Industry.—The Baltimore & Ohio is currently publishing, in a number of leading national magazines, a series of messages paying tribute to American industry, holding that "workers and management of America's industry deserve highest praise" for their "superb accomplishment" in backing up our fighting men. Typical subjects concern the coal industry, vast deposits of which enrich six of the states served by the B. & O., the petroleum industry, important also in many B. & O. states, the steel, rubber and food industries, all of which are served by this railroad.

# *Wabash Finances Greatly Strengthened*

**Favorable refinancing terms for new $47,000,000 first mortgage results from sound capital position — highlights excellent achievement in reducing debt since reorganization**

THE Wabash Railroad Company's successful financing last month of $47,000,000 of first mortgage bonds, series B, due February 1, 1971, at 98.38 for a 3¼ per cent coupon, a net interest cost to the railroad of 3.3436 per cent, focuses a bright spotlight on the excellent achievements of this railroad in strengthening its financial position since the new company took possession and began operation of the properties on January 1, 1942.

As indicated in Table I herein, the reorganization of the Wabash was severe. Total capitalization of the predecessor company of $290,779,536, excluding stock, bonds and scrip held in the treasury, was cut to $189,749,757, a decrease of $101,029,779 or 35 per cent. Fixed interest debt of $152,658,769 was reduced to $61,359,191, a decrease of $91,299,578 or 60 per cent and annual fixed rentals and interest from $7,345,208 to $2,515,322, a decrease of $4,829,886 or 66 per cent.

## Increase in Collateral

By January 1, 1945, the railroad had succeeded in further reducing its fixed debt to $52,614,241, a decrease of $8,744,950 or 14 per cent as compared with January 1, 1942, and an annual interest saving of $332,882. This was accomplished by paying off the entire $4,533,000 issue of 1½ per cent pledged collateral notes, series B, due January, 1953, reducing equipment obligations $2,251,949 and retiring $1,960,000 of guaranteed St. Charles Bridge bonds.

Using the proceeds of the new $47,000,000 issue of first mortgage bonds and treasury funds, the company will call for redemption on April 1 the entire $47,354,300 issue of first mortgage bonds, series A. Giving effect to this financing and redemption, the interest requirements for one year on the new first mortgage bonds, series B, will amount to $1,527,500, a reduction of $366,672 or 19.4 per cent as compared with interest requirements of the series A bonds.

Position of the new first mortgage bonds has been improved not only by this reduction in fixed charges but also by an increase in collateral behind the mortgage. Through the retirement of the above-mentioned pledged collateral notes, the new mortgage succeeds to a first lien on their collateral consisting of 258,929 shares of Lehigh Valley common stock, 1,217 shares of American Refrigerator Transit Company capital stock and 8,250 shares of New Jersey, Indiana & Illinois capital stock. This latter road—wholly-owned by the Wabash—operates 11.38 miles of main line extending from South Bend to Pine, Ind., connecting at the latter point with the Wabash. Retirement of the St. Charles Bridge bonds provides the new first mortgage with a direct lien on that property as well.

## Contingent Interest Cut

On December 23, 1944, the Wabash purchased from the Missouri-Kansas-Texas a line of railway between Moberly and Hannibal, Mo., a distance of 69.75 miles, for $2,400,000, which property now also is subjected to the lien of the first mortgage. This line of railway formerly was operated under a long term lease at an annual rental of $120,000 and its purchase saves this amount in annual fixed rentals.

Since January 1, 1942, the Wabash also had succeeded in cutting contingent interest debt from $39,211,391 to $26,075,891, a decrease of $13,135,500 or 33 per cent and an annual contingent interest saving of $545,487. This reduction in income bonds is of value to the first mortgage since interest on the income bonds is payable as earned and is cumulative for three years. As the interest requirements of these bonds are lowered, more earnings remain for working capital and plant improvements.

By January 1, 1945 then, the Wabash had achieved a total debt reduction of $21,880,450 under January 1, 1942, of which $8,744,950 was in fixed interest debt and $13,135,500 in contingent interest debt. Total annual fixed charges had been reduced to $2,182,440 and contingent interest charges to $1,077,222 (see Table I). By April 1, when the refinancing now under way is completed, total debt will have been further reduced to $77,725,891, a decrease of 23 per cent under January 1, 1941, and annual requirements for one year for fixed interest and for other fixed charges, including amortization of discount on funded debt, will have been reduced to approximately $1,848,700, a decrease of about 28 per cent as compared with fixed charges for the year 1942. The summary of earnings for the years 1934-1944, inclusive, prepared from the company's condensed income amounts and presented in Table II herein, indicates the good coverage by which these fixed charges would have been earned in every year excepting 1938. As indicated in the table, excepting for 1938, present contingent interest requirements also would have been earned in full in each year.

At the close of 1944, the Wabash operated 2,393 miles of road, including 1,807 miles of main line and 194 of branch lines owned and 392 miles operated under trackage rights. As of De-

### Table I—Capitalization (Publicly Held)

| | Wabash Railway | Wabash Railroad | | Decrease | |
|---|---|---|---|---|---|
| | Dec. 31, 1941 | Jan. 1, 1942 | Jan. 1, 1945 | Dec. 31, 1941 vs. Jan. 1, 1942 | Jan. 1, 1942 vs. Jan. 1, 1945 |
| Fixed Interest Debt: | | | | | |
| Bonds, Notes and Scrip | $143,186,820 | $51,887,242 | $47,354,241 | $91,299,578 | $4,533,001 |
| Equipment Obligations | 7,511,949 | 7,511,949 | 5,260,000 | ..... | 2,251,949 |
| Guaranteed Bridge Bonds | 1,960,000 | 1,960,000 | ..... | ..... | 1,960,000 |
| Contingent Interest Debt: | | | | | |
| General Mortgage Bonds Series A | ..... | 17,510,012 | 12,401,412 | 17,510,012† | 5,108,600 |
| General Mortgage Bonds Series B | ..... | 21,701,379 | 13,674,479 | 21,701,379† | 8,026,900 |
| Total Debt | $152,658,769 | $100,570,582 | $78,690,132 | $52,088,187 | $21,880,450 |
| Preferred Stock | $70,896,592 | $31,102,957 | $31,102,957 | $39,793,635 | ..... |
| Common Stock | 67,224,175 | 58,076,218 | 58,076,218 | 9,147,957 | ..... |
| Total Stock | $138,120,767 | $89,179,175 | $89,179,175 | $48,941,592 | ..... |
| Total Capitalization (*) | $290,779,536 | $189,749,757 | $167,869,307 | $101,029,779 | $21,880,450 |
| **Annual Charges** | | | | | |
| Fixed Rentals | $364,039 | $366,500 | $162,770 | $2,461† | $203,730 |
| Fixed Interest | 6,981,169 | 2,148,822 | 2,019,670 | 4,832,347 | 129,152 |
| Contingent Interest | ..... | 1,622,709 | 1,077,222 | 1,622,709† | 545,487 |
| Total | $7,345,208 | $4,138,031 | $3,259,662 | $3,207,177 | $878,369 |
| Sinking Funds | 36,880 | 196,057 | 130,379 | 159,177† | 65,678 |
| Dividends—Preferred Stosk | 3,544,830 | 1,399,633 | 1,399,633 | 2,145,197 | ..... |
| Total Annual Requirements | $10,926,918 | $5,733,721 | $4,789,674 | $5,193,197 | $944,047 |

(*) Excludes stock, bonds and scrip held in the Treasury of the Company.
† Denotes increase.

## Table II—Summary of Earnings

| Years | Railway Operating Revenues | Railway Operating Expenses | Railway Operating Ratio % | Net Railway Operating Income | Income Available for Fixed Charges | Fixed Charges | Contingent Charges | Net Income |
|---|---|---|---|---|---|---|---|---|
| 1944 .. | $94,701,127 | $58,245,216 | 61.50 | $9,277,432 | $10,040,688 | $2,423,691 | $1,316,412 | $6,300,585 |
| 1943 ... | 95,520,547 | 54,355,860 | 56.90 | 11,777,668 | 12,369,207 | 2,402,169 | 1,415,234 | 8,551,804 |
| 1942 ... | 78,898,484 | 47,037,382 | 59.62 | 11,051,645 | 10,853,341 | 2,573,881 | 1,779,388 | 6,500,072 |
| 1941 ... | 57,533,540 | 39,337,304 | 68.37 | 9,114,649 | 9,709,901 | 4,177,788 | ..... | 5,532,113 |
| 1940 ... | 46,013,670 | 34,705,545 | 75.42 | 4,553,345 | 5,106,892 | 7,442,791 | ..... | *2,335,899** |
| 1939 ... | 44,662,526 | 34,245,140 | 76.68 | 3,559,246 | 3,910,222 | 7,452,406 | ..... | *3,542,184** |
| 1938 ... | 40,472,327 | 32,454,521 | 80.19 | 1,297,490 | 1,551,924 | 7,679,814 | ..... | *6,127,890** |
| 1937 ... | 46,133,734 | 35,829,683 | 77.66 | 4,247,857 | 4,562,788 | 7,614,579 | ..... | *3,051,791** |
| 1936 ... | 46,428,262 | 34,334,112 | 73.95 | 6,147,522 | 6,440,613 | 7,721,395 | ..... | *1,280,782** |
| 1935 ... | 41,492,889 | 31,246,552 | 75.31 | 5,213,899 | 5,500,396 | 7,768,864 | ..... | *2,268,468** |
| 1934 ... | 38,235,813 | 28,523,481 | 74.60 | 4,355,273 | 4,628,614 | 7,736,235 | ..... | *3,107,621** |

* Italics denote loss.

cember 31, 1944, the number of units of equipment owned by the company, with the number held under equipment obligations shown in parenthesis, was as follows: 374 steam locomotives (124); 27 Diesel switching locomotives; 18,167 freight cars (11,583); 172 passenger cars (83); 701 work equipment (109); 3 ferry boats and 77 miscellaneous equipment. Units of equipment subject to equipment trusts have a depreciated value as of December 31, 1944, of $16,699,593, against which there is outstanding the $5,260,000 of equipment trust obligations.

Expenditures for maintenance of way and maintenance of equipment, exclusive of depreciation and amortization charges, during the years 1934 to 1944 were as follows:

| | Maintenance of Way and Structures | Maintenance of Equipment |
|---|---|---|
| | (Exclusive of depreciation and amortization charges) | |
| 1944 ..... | $10,950,894 (a) | $8,193,091 |
| 1943 ..... | 9,607,648 (a) | 7,906,872 |
| 1942 ..... | 7,486,176 (a) | 6,801,737 |
| 1941 ..... | 6,889,880 | 6,199,618 |
| 1940 ..... | 5,978,310 | 5,101,460 |
| 1939 ..... | 5,839,081 | 5,233,216 |
| 1938 ..... | 4,922,279 | 4,969,309 |
| 1937 ..... | 6,039,832 | 6,188,868 |
| 1936 ..... | 5,340,018 | 6,144,545 |
| 1935 ..... | 4,823,318 | 4,899,272 |
| 1934 ..... | 4,621,032 | 4,223,195 |

(a) Also excludes retirement charges incident to non-depreciable road property retired and not replaced.

The company's total investment in transportation property on December 31, 1944, was $193,664,860. Investments in affiliated companies and other investments amounted to $36,637,977. Such investments, together with investments in sinking funds, deposits in lieu of mortgaged property sold and miscellaneous physical property totaled $220,992,394.

### Capital Stock

The company controls, through ownership of 99.44 per cent of its outstanding capital stock, which stock is pledged under the first mortgage, the Ann Arbor Railroad Company, the properties of which are not operated by or leased to the company. As previously mentioned, the company owns all the capital stock of the New Jersey, Indiana & Illinois and also controls a number of other subsidiaries and is a proprietary owner in certain terminal companies, the more important of which are located at Kansas City, Mo., St. Louis, Mo., Des Moines, Iowa, Chicago, and Detroit, Mich.

### Additions—Improvements

During the period January 1, 1942-December 31, 1944, investment in road and equipment was increased by $15,171,964. Principal additions and improvements were as follows: acquisition of new equipment covered by equipment trust, series A, originally amounting to $2,000,000 ($400,000 paid off in 1943 and 1944); acquisition of $1,681,669 of new equipment from Wabash Car & Equipment Co.; acquisition of 15 Diesel switching locomotives for $1,099,711, certain of which were originally financed under conditional sales agreements, all of which had been paid as of December 31, 1944; acquisition of railroad bridge and facilities over the Missouri River at St. Charles, Mo., from Wabash-St. Charles Bridge Company (a former subsidiary now dissolved), at a total cost of $2,263,804; acquisition of railroad bridge and facilities over the Mississippi River at Hannibal, Mo., from Wabash-Hannibal Bridge Company (a former subsidiary now dissolved), at a total cost of $595,686; and acquisition of the 69.75 miles of railroad from Missouri-Kansas-Texas Railroad Company, involving a charge to investment account of $2,256,399. During the period the company has also carried out programs of replacing lighter weight rail and fastenings with 112-lb. rail and appurtenant fastenings; improving bridges; eliminating a number of highway grade crossings and rebuilding used equipment.

During 1945, the railway expects to expend $7,581,161 in connection with improvements to the property, of which it is estimated $4,199,115 will be on road projects and $3,382,046 on equipment. It is anticipated that $1,609,186 of the road project expenditures and $2,449,666 of the equipment project expenditures will be charged to investment account.

Operating revenues of the Wabash for the year 1944 amounted to $94,701,127, of which $78,426,279 or 82.8 per cent were derived from freight traffic and $10,734,255 or 11.3 per cent were derived from passenger traffic. In 1944, the company originated about 32 per cent of the tonnage handled by it, terminated about 43 per cent thereof and acted as bridge line for about 39 per cent of the total tonnage handled. As of December 31, 1944, current assets of the company totaled $52,918,975, of which $28,161,500 were temporary cash investments as a reserve fund for taxes, and current liabilities totaled $39,355,988, of which $31,815,172 represented accrued tax liability.

Although the Wabash carries a considerable volume of agricultural products, most of its traffic consists of mines and manufactures and miscellaneous products. Because of this, earnings are largely dependent upon the rate of industrial activity and, in particular, upon the automobile industry. In this connection, the railroad appears to be in a favorable position to obtain substantial traffic in the post-war years from the tremendous pent-up demand for automobiles.

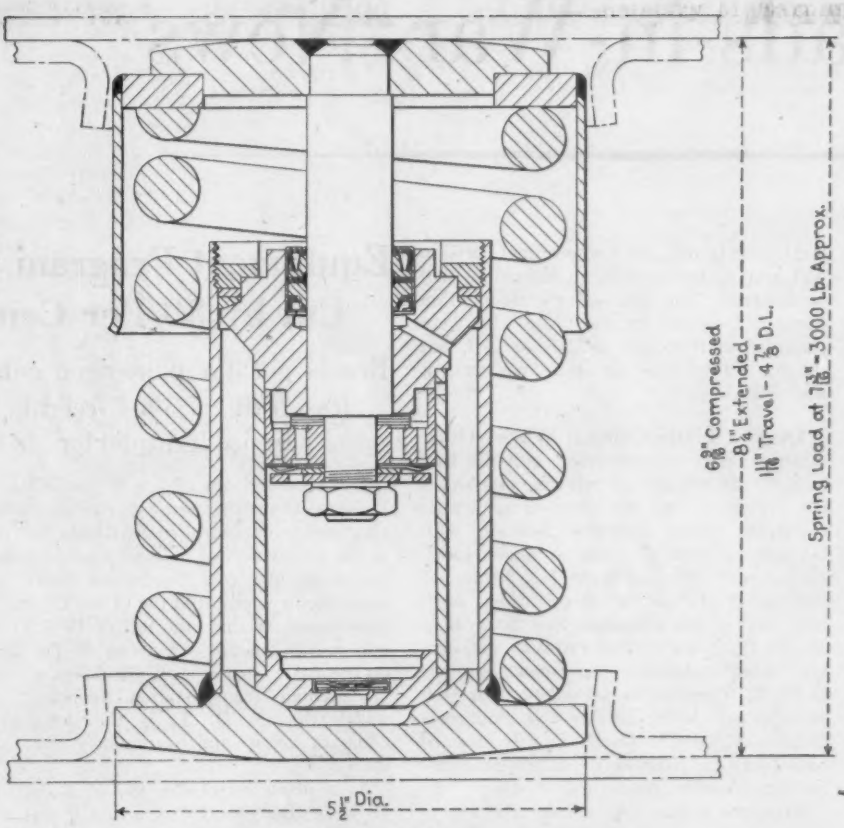
The substantial increases in freight and passenger traffic and revenues derived therefrom during the years 1941 to date have been a direct result of the war effort and some recession in traffic and revenues probably can be expected upon termination of existing hostilities. However, fixed charges now have been brought down to the point where there appears to be no threat in this eventuality.

* * *

British Combine

**Japanese Supply Train Stopped in Burma**

British Beaufighters, concentrating especially on railroads in Jap-occupied Burma, caught this train just south of Mandalay, on the main railroad to Rangoon, some time in December. It may be surmised from the photograph that the locomotive boiler has been put out of business by the strafing and fires have been started in many of the cars

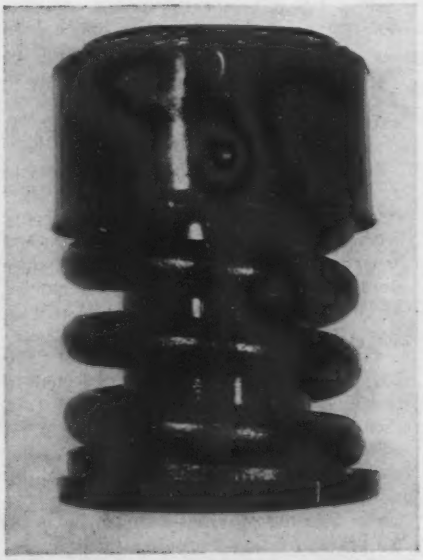



**A Cross Section of the Shock-Absorber Unit**

# *Shock Absorber for Freight Cars*

Based on experience gained in equipping a large percentage of all railroad passenger cars built since 1936 with hydraulic shock absorbers and a notable record as manufacturers of shock absorbers for U. S. tanks, jeeps, scout cars and heavy trucks, the Monroe Auto Equipment Company, Monroe, Mich., has recently announced the development of a new hydraulic shock absorber for freight cars. Specific objectives sought in the development of this device are uniformly dependable performance in cushioning shocks to lading and car structures; quiet, efficient action; long life, and general freedom from the necessity of servicing.

The new hydraulic shock absorber is a small, compact and self-contained unit which replaces one conventional truck spring in the spring cluster supporting each end of the truck bolster. It offers hydraulic resistance to the compression movements and contains an external spring which carries part of the load imposed by the weight of the car and also returns the shock absorber to its original position. Hydraulic resistance inside the pressure chamber is controlled by a series of spring-steel discs used in conjunction with a predetermined metered orifice. The control can be varied to meet any required conditions by using the proper combination of orifice and pressure relief. The pressure chamber is surrounded by a large oil-reservoir chamber to compensate for the displacement of the piston rod.



**The Monroe Hydraulic Shock Absorber Replaces One Oil Spring in Each Bolster Spring Cluster**

In operation, oil passes from the reserve to the pressure chamber through a non-return valve in the lower part of the pressure chamber. The unit is a sealed assembly at the lower end so there can be no leakage at this point, and the upper end is sealed with synthetic rubber seals. The oil used is said to assure uniform action under all temperature and weather conditions encountered in normal railway operation.

Another development of this company is a stabilizer designed to minimize the swaying of freight cars caused by track irregularities or curves. This device consists primarily of a torsion bar extending across each truck and connected between the bolster and truck frame in such a way that any tendency of the car body to rock on the truck centers is resisted by torsion in the car. This type of device has demonstrated its value in passenger service.

This company has also effected a number of improvements in passenger-car hydraulic shock absorbers. The modified shock absorbers are said to be lighter and more economical, both in original cost and in use. Higher pressures are possible because of closer tolerances and improved finishes on the pressure chamber, shaft guide, shaft, valves and valve seats.

## NEW BOOK . . .

*The Modern Gas Turbine. By R. Tom Sawyer. Published by Prentiss-Hall, Inc., 70 Fifth avenue, New York. 250 pages, 6 in. by 9 in., 131 illustrations. Price $4.00.*

The gas turbine has been very much in the limelight during the past three or four years and yet because of the war much of the development work during that period has either been done without any great amount of publicity or has mainly been the subject of papers before technical societies. The gas turbine, in its several forms, appears to have great possibilities in the future and there is considerable curiosity concerning its principles and applications both on the part of the layman and the engineer in industry.

With the idea of satisfying the needs of both these groups the author of this nontechnical work has co-ordinated the available data on the subject into a book that is well organized and extremely readable. From the opening chapters dealing with historical background, through chapters which present the fundamentals of principles and design and on into that part dealing with the many practical applications of the gas turbine, the author has kept in mind the diversity of interests of the reader to such an extent that irrespective of whether he be in railroad, marine, public utility or aeronautical work his questions will find an answer.

Of particular interest to the railroad man is the chapter on the gas-turbine locomotive. In it are discussed the existing applications, both in this country and Europe, of the gas turbine as a supercharger for Diesel engines and as a prime mover. Design and performance data are included that enable the reader to make comparisons with existing types of railroad motive power and to lay a groundwork of knowledge of the subject that will be valuable in appraising future developments.

# Railroads-in-War News

## O. D. T. Asks List of "Indispensable" Men

### To certify only a "few" rail employees under 30 to local draft boards

Details have been disclosed of a plan under which, at the request of the Office of War Mobilization and Reconversion, the Office of Defense Transportation will act as a claimant agency and certifying authority for recommending draft deferment of "indispensable" workers in the transportation and related industries. These new occupational deferment procedures were discussed at the February 23 meeting of the Association of American Railroads' Board of Directors by A. W. Motley, director of the O. D. T. Division of Transport Personnel.

The O. D. T. is one of 15 government war agencies designated to certify requests from employers for the recommendation of deferment of workers they consider indispensable. In addition to the railroads, the O. D. T. represents these industries: automotive maintenance, highway and local transport, air transport, tank car leasing, inland waterways, and cold and dry storage warehousing.

**Few Deferments Foreseen**—"Because of the increased requirements of the armed forces, comparatively few men in the transportation industry can be deferred," according to O. D. T. Director Johnson. Moreover, he said, "the number of men to be inducted into the armed services during the coming months will greatly add to the manpower shortage which is now seriously handicapping all branches of transportation."

Colonel Johnson explained that no man may be certified for recommendation for deferment if he is not doing work classified as indispensable; if he can be replaced by someone doing less essential work; if another recruit or transferee can be trained to do his work in three months; or if he is doing any work connected with post-war production.

As claimant agent for transportation deferments, the O. D. T. is asking railroads to submit lists of key workers in the order of their indispensability placing those whose loss would be most serious first on the list. In order to have employees certified by the O. D. T. for deferment, employers are required to submit lists of their employees under 30 years of age, two sets of Selective Service Form 42-A Special (Revised), and a certification that such submission is being made to only one claimant agency. A "fixed percentage" of those on the list then may be certified by the O. D. T. to local draft boards, with whom final decision will rest as to whether an individual will be deferred. The lists of men under 30 on January 1 should include those who were classified at that time as 2-A or 2-B, but should not include part-time workers, it was explained.

**Quite a Little Clerical Work**—Other information to be submitted with the lists includes the number of full-time employees on January 1, and the name of each man registered under Selective Service, with his age, occupation, place of employment, draft order number, local board number and Selective Service classification. Such lists are to be submitted not later than March 10, in the case of railroads and certain other industries represented by the O. D. T. They are to be made out for each state in which the carrier has employees under age 30. The O. D. T. will forward copies of the lists to the state Selective Service directors concerned.

After the proportion of men who are to be certified for deferment has been determined, employers will be required to list this smaller number of names on a special form for O. D. T. certification to the local boards, it was further explained. Sample copies of the lists and further information may be obtained from O. D. T. local or Washington offices, and copies of the form 42-A will be available "shortly" at local draft boards, according to the O. D. T. announcement.

Railroads will send the required lists to Mr. Motley at Washington; tank car leasing companies to R. N. Lamberton, deputy director of the O. D. T. Liquid Transport Department, Washington; and warehouse operators to Samuel G. Spear, director of the O. D. T. Division of Storage, Washington. Highway and local transport operators, for the receipt of whose lists no fixed time limit has been set, are expected to send them to the nearest O. D. T. district office.

The W. M. C. list of essential activities has been modified by addition of "pick-up and delivery trucking to and from line-haul carriers" to the activities included in Group 26, Transportation Services, rated as essential for draft board purposes, the W. M. C. announced February 21.

### 716th Commandant Acquitted

A wireless dispatch from Paris to the New York Times on February 22 reported that Major Walter Marlin, heretofore commanding officer of the 716th Railway Operating Battalion, had been acquitted by a court martial of charges of neglect of duty. A considerable number of the enlisted personnel of this battalion and three of its officers have been convicted on various charges involving diversion of freight into black market channels.

## Equipment Program Cut by 30 Per Cent

### Roads get no passenger cars, less rail, 7,500 freight cars in 2nd quarter

By "slashing" the claims of the Office of Defense Transportation for second-quarter allocations of controlled materials for use in the production of civilian transportation equipment, the War Production Board has made the deepest cut in the O. D. T.'s quarterly program since the fall of 1943. This cut, which amounts to about 30 per cent on the basic carbon steel allocation, affects all civilian transportation agencies, for which the O. D. T. is the designated claimant agent, and particularly the railroads.

In explanation of the W. P. B. action, O. D. T. Director Johnson said it was due to the "heaviest military requirements for steel since the beginning of the war." The cut in allocations was a subject of discussion at the monthly meeting of the directors of the Association of American Railroads in Washington, D. C., February 23, at which time Colonel Johnson pointed out that the performance records made by the carriers in this war probably will have to be exceeded if they are to meet the greater demands that this year's traffic will make upon them.

The equipment program outlined by the O. D. T. called for an allocation of 1,527,000 tons of carbon steel in the second quarter of this year. The W. P. B. allowed only 1,065,000 tons. The first quarter allotment was 1,254,838 tons.

The effect of this reduction in the allocation of carbon steel on the production of materials and equipment for railroad use was outlined by the O. D. T. as follows:

*Replacement Rail*—the most important railroad item. The O. D. T. requested 600,000 tons, or the entire controlled-cooled rolling mill capacity. It received 417,000 tons for the railroads, and 11,000 tons for transit lines. A "large part" of this reduction was said to be due to increasing military requirements for steel billets for artillery shells.

*Track Accessories,* such as tie plates, joint bars, bolts and spikes—the second largest railroad item. The O. D. T. request for 300,000 tons for this category was pared down to 209,000 tons for railroads and 5,000 tons for transit lines.

*Freight Cars:* To provide for a planned quarterly production of 13,500 cars the O. D. T. had requested an allotment of 250,000 tons of carbon steel. This was cut to 135,000 tons, from which it is estimated 7,500 cars can be fabricated. The

O. D. T. indicated that most of these will be box cars.

*Locomotives:* Without detailing its program, the O. D. T. gave the second quarter carbon steel allocation as 30,000 tons.

*Passenger Cars:* As previously announced, the O. D. T. program for the production of passenger cars in 1945 contemplated an output of 250 cars per quarter, and some materials were allocated by the W. P. B. for the first quarter schedule. For the second quarter, however, no steel was provided for passenger cars, as that phase of the program was disapproved entirely by the W. P. B., except that 252 tons was allotted for the production of 15 baggage and mail cars.

Other transportation agencies likewise suffered cuts in allocations of steel for the second quarter, the O. D. T. pointed out. Its request for 18,250 tons for integral buses, street cars, bus bodies, and trolley coaches was cut to 14,310 tons. The allocation of 67,000 tons for motor trucks was described by the W. P. B. as "adequate to cover the authorized O. D. T. truck program for the quarter." The allotment for truck bodies, trailers, and third axles was cut to 23,500 tons from 31,800 requested. Automotive replacement parts, for which 155,000 tons was allotted for the first quarter, received 130,000 tons on a request for 150,000. For highway tank trailers the allocation was 438 tons. For inland waterways transport, including barges, tugboats, towboats and work equipment, 10,000 tons was approved on a request for 19,000.

In addition to the basic carbon steel allocations thus detailed, proportionate allotments of copper and aluminum were allowed, the O. D. T. explained, and a total of 98,000 tons of alloy steel was allotted out of requests for 134,000 tons.

Following this O. D. T. statement, the W. P. B. issued a summary of the general steel situation as developed in an industry advisory committee meeting February 22. The second quarter supply picture was described by W. P. B. spokesmen as "particularly critical with respect to quality steels, seamless pipe and tube, and other products." During January, it was said, steel production was 350,000 tons under expectations, because of adverse weather, fuel shortages and "other problems." It was conceded that "sharp revisions in military procurement schedules" had caused some "sharp dislocations" of production schedules.

An "emergency committee on steel problems," made up of six representatives of government agencies, has been named by W. P. B. Chairman Krug to review the "entire steel supply and demand situation for the second and succeeding quarters of this year, with a view to making recommendations to assure that all essential requirements for the metal will be met."

In reviewing the second quarter allotments of steel, it was pointed out that the carry-over of requirements from the first to the second quarter of this year will be about 3,000,000 tons, with the result that allotments have been sharply reduced for the latter period. Fear was expressed that "some important military requirements for the second quarter will not be met unless production can be increased over present levels." It was also pointed out that some danger exists that production in some plants may be impeded by floods, and that a "work stoppage" of coal miners, whose contracts with their employers expire April 1, might "seriously and immediately impair steel production."

## Alert Train Crew Saves 200 Tank Cars from Yard Fire

When fire broke out recently on track No. 3, in a French railway yard, occupied by nearly 200 loaded tank cars, holding about a million gallons of gasoline, all except nine cars and 10,000 gallons were saved from the blaze by the prompt action of a five-man train crew. In brief, a locomotive was coupled to the train on track 3 and the cars were moved from danger to a spot where a fire-fighting unit could extinguish the blaze. Three times the men returned to clear tracks 1, 2 and 4, and, while on the latter track, several of the tanks caught fire and also had to be moved to within reach of the fire-fighting equipment.

The train crew, from Company C, 733rd Railway Operating Battalion, included: Sgt. Sam C. Robinson, Montgomery, Ala.; Sgt. William F. Rooney, Chicago; Pfc. Ira M. Holt, Flomaton, Ala.; Pfc. Alvin S. Howard, Temple, Tex., and Pfc. Raymond E. Shipp, Elsinore, Ky.

## Wilson, Now Colonel, Commands Mediterranean Theater

From Allied Headquarters in Italy comes word that Lt. Col. William P. Wilson, former division superintendent of the Colorado & Southern, at Denver, Colo., has been promoted to colonel, in command of all American Military Railway Service troops in the Mediterranean theater of operations. Since October, Colonel Wilson has been deputy director of that command for Brig. Gen. Carl R. Gray, Jr., director general of the 1st M. R. S., who is now supervising railway operations in southern France.

Before being assigned to the Mediterranean theater last September, Colonel Wilson had commanded the 770th Railway Operating Battalion in Alaska, the outfit which operated the "toughest railroad in the world."

**Col. William P. Wilson**

In July, 1942, Colonel Wilson was recalled to the United States to activate the 745th Railway Operating Battalion, sponsored by the Burlington. Following training he took his command to Burma where his outfit, combating malaria and dysentery, "and licking them both," operated the Bengal & Assam Railway.

Last September, Colonel Wilson became head of the 774th Railway Grand Division, and a month later was made deputy director, Allied M. R. S.

"The biggest problem in this theater," the Colonel said then, "is reconstruction of rail lines. What we haven't bombed, or shelled, the enemy has destroyed. But the Italian State Railway employees are good railroaders and they have been able to give us a great deal of assistance. As the Armies in Italy move forward we turn the lines back to the Italians, and because they understand that fact, we get their cooperation."

## Two Operating Battalions Move All Supplies at Antwerp

In charge of the thousands of tons of war supplies which move through Antwerp's 500 miles of railroad lines daily, are two Transportation Corps operating battalions which share classification yards, freight depots and "quay-side apron tracks," Headquarters, European Theater of Operations, reports. The two units working the port, and the Railway Grand Division, commanded by Lt. Col. G. C. White, were sponsored by the Illinois Central, the New York, New Haven & Hartford and the Southern, and include men from more than 100 U. S. railways.

Lt. Col. Frank G. Cook, of Spokane, Wash., a division superintendent with the Northern Pacific, is commanding officer of one of the battalions and is charged with the assignment of handling loads from the docks to the classification yards. Lt. Col. W. C. Smith, an N. P. superintendent from Missoula, Mont., supervises classification of all loads and makes up the trains.

The repair, maintenance and operating facilities, Headquarters describes as probably the most modern on the Continent, and the quay-side system of loading the cars directly from the vessel's holds is considered "superior to that of even the New York Port of Embarkation." The trains are made up in blocks, depending upon load and destination, and receive a final inspection, including testing of air brakes, before they are turned over to Belgian train crews.

Roundhouse crews (and, incidentally, roundhouses are square in Belgium, the hostlers bringing in engines over a network of track rather than by turntable) fall under the supervision of two Illinois Central veterans—Capt. John W. Shelton, company commander and master mechanic from Memphis, Tenn., and 1st Lt. William M. Griffin, formerly a roundhouse foreman at Champaign, Ill.

Capt. Leslie H. Strommien, of St. Cloud, Minn., and once with the Great Northern, whose job in battalion headquarters is synonymous with that of a company superintendent, has charge of car allotments to

docks, and coordinates operation of each yard office. From his group also are assigned the telegraphers, dispatchers and towermen.

Company commander for the group handling maintenance of way, and track and bridge construction is Capt. Leo E. Donovan, formerly with the Illinois Central, at Springfield, Ill.

## Weather's Effect on Car Supply Not Yet Overcome

Despite substantial progress made by the railroads in sections hard hit by the December and January storms in clearing up blocked yards and restoring car movements to more or less normal schedules, the effects of what Hiland G. Batcheller, chief of operations of the War Production Board, has termed the "worst winter since 1918" still are reflected in spotty car supply conditions and occasional interference with civilian industrial operations, according to late reports.

Discussions of the effect of the weather on railroad performance in recent weeks at the meeting in Washington, D. C., February 23 of the board of directors of the Association of American Railroads brought out the fact that perhaps the most persistent result of the congested conditions and embargoes was an abnormal concentration of cars of certain types in certain areas. In general, it was reported that the East had a relative excess of box cars and the West an excess of open top cars, and it was expected that it would take several weeks to restore a normal balance in this situation.

Reviewing the outlook for the coal industry for the next few months, perhaps with one eye on the possibility of a "work stoppage" when the miners' present working agreements expire, Solid Fuels Administrator Ickes has advised the W. P. B. that the "coal shortage is here and getting worse."

Among other factors contributing to a "pessimistic outlook," he said, "today the transportation tie-up is hampering industry in general. As to coal, many mines are short of cars, some with as low as a 30 per cent supply. Mines without cars cannot operate, and the production lost cannot be made up. Let us get more men to the railroads to clear the tracks. Additional colliers on the Atlantic coast would relieve the car situation. Let us take vessels from convoys if necessary to help dispose of the transportation problem. These are the kinds of things we must do if we are going to get efficient operations in our war plants."

**Shortage of Coal Cars**—During the week ended February 17, soft coal mines reported an aggregate shortage of 8,457 cars, or a deficiency in car capacity of some 465,000 tons, according to Mr. Ickes. He predicted that there will be a "crisis by next winter" in the coal situation if the war in Europe lasts that long. Production will fall 50 million tons short of demand, he estimated, and "tricks" such as reducing stockpiles, working overtime, and revising distribution methods "are about played out." Even if the European war ends within a few months, the demand for coal in the year following, assuming the war in the Pacific continues, still will exceed production by 21 million tons, he estimated.

Analyzing the petroleum supply situation as of the week ended February 17, Deputy Petroleum Administrator Davies predicted that shipments of oil and petroleum products into the eastern consuming area during the month of February would fall considerably below schedule. In the first two weeks the deficit in deliveries was 50,000 barrels a day, he said, principally because severe storms had delayed tank car movement. Although tank car deliveries in that week in the Atlantic coast region had increased from the low levels of the two preceding weeks to an average of 487,826 barrels a day, they still were considerably below the scheduled program, he pointed out. "We have a long way to go before we catch up with the stock losses incurred when railroad, barge, and truck traffic was snarled by bad weather," Mr. Davies declared.

Reflecting the dislocation in tank car movements resulting from the storms, the Car Service Division of the A. A. R., at the request of the P. A. W., on February 24 reissued its outline of procedures to be followed in reporting no-bill tank cars and securing their prompt disposition, in an effort to overcome the effects of necessary delays to and diversions of loaded and empty cars assigned to the oil traffic of the Northeast.

## Civilians May Enroll in Army Transportation Association

The Army Transportation Association has been organized by members of the Transportation Corps under the honorary presidency of Major General Charles P. Gross, the Army's chief of transportation, and, in the New York area, a membership campaign is in progress by the local chapter, which has Colonel E. C. R. Lasher (commanding officer of the Second Transportation Zone) as its president.

The object of the Association is stated to be "to perpetuate the friendships, ideals and principles engendered in the service during the war; to preserve and promote technological improvements in transportation and to maintain a current source of information and ideas relating to the transportation task during the present emergency and in any future emergency which calls for unified action."

Membership in the Association is of three classes: Charter and regular memberships are available to Transportation Corps officers; corps membership to enlisted personnel; and associate membership to civilians who are engaged in transportation. Annual dues have been set at $7, which includes subscription to the official publication, "Army Transportation Journal."

The New York chapter of the Association has its headquarters at 25 Broad street, New York, while the national headquarters is located at 930 F street, N.W., Washington, D. C.

Col. E. C. R. Lasher

## Tie Producers' Labor Situation Under Survey

Increased production of crossties is being sought by the Office of Defense Transportation in cooperation with other government agencies in an effort to meet what the industry terms a serious shortage, according to O. D. T. Director Johnson, who explained that he has written companies in the wood preserving industry asking their compliance with requests from the War Manpower Commission for information to facilitate its survey of the labor supply situation in the industry. The survey is being undertaken at the request of the O. D. T., he indicated, because a shortage of labor has been one of the principal reasons for the decline in tie production.

Under W. M. C. classifications, the production of crossties, from the cutting areas to the concentration points, including their treatment with creosote or other preservatives, is a "critical activity," the O. D. T. pointed out. The W. M. C. survey was described as "only the first step" in an O. D. T. program to stimulate tie production by keeping workers employed in the various branches of the tie-producing industry.

## Former Railroad Officer Is Awarded Purple Heart

Capt. Russell J. Morton, of West Point, Ga., who before taking a commission in the Corps of Engineers, U. S. Army, was general superintendent of the Chattahoochee Valley Railroad, recently was awarded the Purple Heart for wounds received in action, according to word recently received from U. S. forces in Belgium.

Captain Morton's injuries were slight, it is said, and he since has returned to duty at a major Belgian port, where he now is attached to the Military Railway Service. The captain, who was assigned to this branch following several months' duty in England, has been on the Continent since D-Day, and participated in both the Normandy and northern France campaigns.

## Ingenuity of Shop Battalion Insures Supplies to Front

"We were practically working with our bare hands and ingenuity." Thus did Lt. Laurence R. Blizard, of Chicago, freight car repair shop superintendent with a railway shop battalion in France, describe the situation which confronted his outfit after it took over a demolished, but once modern repair shop, locomotive shop and engine-

house, soon after arrival on the Continent. "We turned the turntable by hand. We coaled the engines with buckets. There was no power, and little light. Lack of water presented a big problem," the officer explained.

Yet, despite congestion and absence of power, "which made a two-hour job out of every normal ten-minute procedure", locomotives and cars went out when ordered and, within three weeks, 46 locomotives "were readily dispatched on one order".

Activated in New Orleans, La., just a year ago, the battalion, under the command of Lt. Col. Emil G. Ringberg, was confronted with a sizable task in this first assignment in France, finding the once modern repair shop, capable of housing and repairing 150 locomotives and 200 cars, "completely demolished". Capt. John Clark, Northampton, Mass., supervised the untangling of wreckage, in which cars were piled end-on-end, and in the first week, 13 cars daily were released. Within two weeks, double that number were emerging.

At the locomotive shop and enginehouse the problems were somewhat more complicated. Originally there had been a 12-stall shop, with three overhead crane bays and a turntable leading to a 46-stall enginehouse at each side of the shop. Reinforced concrete shop buildings, and both enginehouses had been demolished, except for about 8 usable stalls. One track remained open in the plant, and there was only one usable water plug left. Three hundred civilians were hired, the French railway company called in all its employees and, assisted by about 300 German prisoners as well, all debris finally was removed. Civilians were fed by the shop battalion and all drinking water was hauled from a point five miles away. Engines were coaled by hand, with the somewhat unpredictable help of a crane, subject to periodical failure.

A three-trick schedule was established once the enginehouse began functioning, and American 2-8-0 locomotives and Diesels were brought in. Lt. Blizard and Lt. Stanley H. Foskett, assistant shop superintendent sought to meet all needs quickly, such tools as were available answering the very minimum in requirements.

Remarking upon the record established by his men, Commanding Colonel Ringberg said simply that they "have done a swell job".

## Baseball Gets Johnson's O. K.

Travel conservation plans worked out by the heads of the two major league baseball organizations, in cooperation with Director Johnson of the Office of Defense Transportation, have been announced by the O. D. T. with the explanation that they will result in a saving of about 25 per cent in passenger-miles over baseball's 1944 requirements. The program includes elimination of exhibition games, reductions in rosters of teams traveling, possible omission of world's series, and revision of schedules to reduce travel.

Baseball is a "travel deterrent," according to Colonel Johnson, in that "twenty thousand fans in grandstand seats probably means several thousand less travelers in railroad and bus seats." Praising the full cooperation of professional baseball in effecting travel economies since the war began, he warned that the transportation situation is "so critical" that there may have to be further restrictions than were announced after the February 21 meeting.

# Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since February 16, and which are of interest to railways:

**Antifreeze**—Ample supplies of antifreeze will be available to meet both military and civilian requirements in 1945. While no methanol antifreeze will be available for the 1945-46 season, the supply of the permanent type of antifreeze (ethylene glycol) will approximate last season's output, W. P. B. said. No antifreeze will be made from methanol because of the need of this chemical in the production of formaldehye to meet increased programs for munitions. Distribution of antifreeze by states will be continued in the coming season, W. P. B. added.

**Building Construction Limitations**—Changes in the construction limitations applicable to authorized building projects, which reflect recent modifications in W. P. B. orders governing materials and equipment used in construction, have been incorporated in an amendment to Schedule A to CMPR-6. The revised restrictions are applicable to all construction authorized on Form GA-1456 (used to authorize most commercial, industrial and agricultural construction controlled by Conservation Order L-41, the basic construction order) on or after February 17, 1945, following approval on Form WPB-617. In addition, a builder whose authorization was issued before that date may take advantage of any provisions of the amendment. The changes also apply to certain utility construction controlled by W. P. B. Order U-1 (Utilities).

Because of the current shortages of sheet steel, the amended schedule restricts the use of various fabricated items made of sheet steel and strip, including doors, electric metallic tubing, partitions except toilet partitions, raceways and other items. It also restricts the use of fencing, tanks and tank towers. Restrictions on the use of metal lath, which were contained in the May 23, 1944, and August 7, 1944, issues of the Construction Limitation, but omitted in the October 31, 1944, revision, have been reinstated in the new amendment.

Plywood form liners are now prohibited, but tongue and groove lumber is permitted for forms where used lumber or plywood is not available. Western pine lumber is prohibited except for certain millwork. Lead and lead products are prohibited except for certain specified uses such as solder, paint and certain processing uses.

Changes have been made in the equipment list (Appendix II). A new paragraph has been added specifying what equipment may be bought with the rating assigned. This provision states that ratings assigned on authorizations issued on or after February 17, 1945, may not be used to get furniture controlled by Orders L-13-b, L-260-a, or L-49. In addition the equipment lists have been amended to bring them up to date with other orders. Equipment that is fired by oil or by natural gas must now be specifically listed on the WPB-617 application form.

Copies of Construction Limitations (Schedule A to CMPR-6) as amended February 17, are available at all W. P. B. district offices, and should be consulted by all builders holding a Form GA-1456, irrespective of when such authorization was issued, W. P. B. said.

**Camelback**—Current shortages of carbon black will indefinitely postpone the manufacture of Grade A camelback for recapping passenger car tires and small truck tires.

**Clay Products**—Serious man-power shortages are preventing the clay sewer pipe and kindred products industry from meeting essential requirements in plants, veterans' hospitals and other projects essential to the war effort, members of the industry advisory committee said at their recent meeting.

**Cotton Duck**—Production of cotton duck and duck substitutes has been increased to more than four times the pre-war rate, but still falls about 20 per cent short of meeting closely screened over-all military requirements for the first quarter of 1945, exclusive of accumulated production deficiencies of the third and fourth quarter of 1944. Weekly production has rebounded sharply from the year-end dip, which reflected the usual holiday influences as well as a week's vacation shutdown, usually taken in July, of one large tent twill mill, but is still substantially below the approved requirements program.

**Fuel Oil**—Approval of the Petroleum Administration is now required before any kind of fuel oil can be used in commercial or industrial space heaters that are installed after February 26, 1945, and which singly or in combination burn 10,000 or more gallons a year, Deputy Petroleum Administrator Ralph K. Davies announced recently.

**Millwork**—Because of the general critical lumber situation and shortage of western pine, the use of lumber for only the most essential types of millwork was recommended by the Millwork Industry Advisory Committee at its recent meeting. In the first quarter of 1945, western pine was authorized primarily for the military and use in containers, millwork and matches. Requirements for containers have increased greatly and are expected to continue to rise, as a result of stepped up military programs. Lumber production dropped below the normal seasonal decline beginning in September, as a result of shortages of man-power and equipment and the attitude, prevalent at that time, that the end of the European war was in sight. The full impact of lack of heavy-duty tires will be felt when spring logging begins. No improvement in factors retarding production can be anticipated and there seems little or no likelihood that 1945 production will exceed 30,000,000 f. b. m., they said.

**Rubber Tires**—A new development in tire construction—the use of heavier rayon yarn—is making possible the production of thousands of additional military tires at a time when they are needed to help overcome a critical shortage, Firestone Tire & Rubber Co. reports.

**Steel Drums**—The W. P. B. has issued an explanation of the alternate quota method of computing the tonnage of new steel drums that may be used to pack the classes of commodities set out in Schedule A of L-197, to fill industrial orders in the first quarter of 1945. The alternate quota is the same as the tonnage of new steel drums permitted as the quota for the fourth quarter of 1944, including any tonnage increases in the quota authorized in that quarter.

**Zinc**—Zinc will shortly join the lengthening list of metals that will again be placed under allocation because of increasing war requirements. Zinc went off allocation on September 15, 1944. The new regulations are expected to follow closely the previous allocation order. The total indicated 1945 consumption is 1,078,000 tons of slab zinc, as compared with an indicated production, including imports, of 870,000 tons, leaving a deficit of 208,000 tons. These statistics point to an average monthly shortage of 18,000 tons, W. P. B. said.

## Prices

**Cotton Rope and Twine**—Increases of one cent a pound in manufacturers' ceiling prices of cotton rope and cotton twine were authorized, effective February 17, on an interim basis by the O. P. A. Products covered by the regulation on carded cotton yarn are not affected.

The action is intended to prevent production delays and to provide temporary relief to producers, pending O. P. A.'s action on final prices. Jobbers and retailers are still held to March 1942, prices under the GMPR for clothesline and other cotton rope and twine products.

# GENERAL NEWS

## Cuts Some Railroad Rates on Automobiles

### I. C. C. reports on its 28190 investigation of transportation of new autos

Reporting in the No. 28190 proceeding which involves rates and practices applying to the transportation of new automobiles by rail or highway, or by either in conjunction with water carriage, the Interstate Commerce Commission has found only one thing to condemn—the rail rates where they exceed 75 per cent of the corresponding first-class rates, minimum 12,000 pounds. Other interstate rates, rules, regulations, and practices of the railroads and highway carriers were found "not unreasonable, unduly prejudicial, or otherwise unlawful."

Automobiles are rated first class, but the report points out that commodity rates on lower levels have been established "and are now rather general." It adds that such commodity rates are on "a wide variety of levels, ranging from about 30 per cent to 100 per cent" of first class, first class actually applying "only beyond the usual scope of highway competition, or where that competition is so lacking in force as to require no reductions below the classification basis."

**Auto Transports Sought Ruling**—The report by Commissioner Miller is a document of 81 mimeographed sheets, plus appendices. It rejects that phase of the proposed report by Examiners William A. Disque and H. C. Lawton, which recommended that the proceeding be discontinued with a finding that none of the rates or practices involved had been shown to be unlawful. (See *Railway Age* of January 22, 1944, page 259).

The proceeding, a general investigation, was instituted by the commission January 27, 1939, on petition of the National Automobile Transporters' Association. Types of highway carriage involved are truck-away, tow-bar, and drive-away. As indicated above, water transportation of automobiles was not involved, except to the extent that it was used in conjunction with rail or highway carriage; the proceeding was never broadened to embrace the water transportation brought under commission jurisdiction by the Transportation Act of 1940.

Because virtually all transportation of new automobiles ceased shortly after the entry of the country into the war, and because post-war conditions may be substantially different from those described in the record, most of the parties "except the few that seek relief" asked that the proceeding be discontinued or dismissed without a report, or that it be held in abeyance until after the emergency, and reheard in the light of conditions then existing. The Transporters Association finally came around to this position although at the hearings it had offered evidence in support of a contention that the commission should decide, as the report put it, "the economic spheres in which the respective forms of transportation may lawfully predominate and control in the handling of the automobile traffic."

**Railroads Seek to Hold Traffic**—American Trucking Associations, Inc., persisted to the end in urging that the foregoing be done. It contended that the commission "should at this time announce principles to guide the parties when normal conditions return." The railroads sought no relief. "They want to be left free to meet competition," the report said. "They believe their rates must be substantially lower than the truck rates, if they are to handle any considerable portion of the business and they intend to publish whatever rates are necessary to obtain their share. They have spent millions of dollars in terminals, equipment, and other facilities to develop the traffic and intend to do their utmost to attract and retain all of it they can handle, at compensatory rates no farther below reasonable maxima than necessary. They suspect that many of their rates are still too high, compared with the truck rates, and expect to make such further and successive reductions as may be necessary."

The report includes considerable discussion of the cost studies introduced in the case by the commission's Bureau of Transport Economics and Statistics. These were appraised as showing that "the rates of the several forms of transportation are generally compensatory, except in scattered instances." Thus the commission found no basis for the prescription of minimum rates. "Freezing the rail rates and the motor-carrier rates on a common level," it said, "would allocate additional traffic to the motor carriers, because of their door-to-door service and other advantages. For movements exceeding 200 miles the rate parity and the advantages of the motor carriers would spread an umbrella over them, and bring them much more of the long-haul traffic, although for such distances they are least fit from a cost standpoint."

**Economic Division of Traffic**—"Distribution of the automobile traffic among the various modes of transportation," says the report's conclusions, "gradually has evolved to a point where it seems to reflect the inherent advantages of each agency more than it does the rates for the service. The water carriers obtain practically all the traffic from Detroit to Cleveland and Buffalo, because they provide mass trans-

(*Continued on page 433*)

## Assail R. L. E. A.'s New Social Insurance Bill

### It proposes class legislation and discriminatory taxes, roads say

Railroad management's presentation in opposition to the Railway Labor Executives' Association's program for liberalizing the Railroad Retirement and Railroad Unemployment Insurance acts got under way as hearings before the House committee on interstate and foreign commerce were resumed this week. The hearings are on H. R. 1362, the bill embodying the R. L. E. A. program, which was introduced by Representative Crosser, Democrat of Ohio; earlier sessions, where R. L. E. A. and other labor presentations were made, have been reported in the past four issues of *Railway Age*.

**"Wholly Indefensible"**—Opening for the railroads on February 27, J. Carter Fort, vice-president and general counsel of the Association of American Railroads, made a brief introductory statement, saying that the carriers regard the bill as "wholly indefensible from any point of view in its fundamental purposes and aspects." First witness for the railroads was Sidney S. Alderman, general solicitor of the Southern, and the schedule called for subsequent statements from Dr. Julius H. Parmalee, director of the Bureau of Railway Economics, R. W. Brown, president of the Reading, Fred G. Gurley, president of Atchison, Topeka & Santa Fe, J. J. Pelley, president of the A. A. R., and Mr. Fort.

Mr. Alderman's was a lengthy presentation in the form of a general statement of management's objections to the bill, which had not been completed when this issue went to press. From time to time he stressed the "discriminatory" nature of the proposed legislation, insisting that the railroads are not opposing social security legislation as such. He pointed out that railroad employees already have a system of social insurance "which is far in advance of the systems provided for employees of all other industries."

**"Special Privilege"**—"We are really opposing special class legislation," Mr. Alderman went on. "We are opposing an exaggeration of special privilege. We are opposing discriminatory tax burdens which would put the railroads in a highly unfavorable competitive position that would severely handicap them in the terrific competitive struggle for traffic and revenues which is bound to follow the war. We are opposing a bill which would much more than undo all that the railroads have been

able to do during the war period by way of saving and preparation to meet that competition. . . .

"We shall undertake to show that the passage of this bill would be unwise for many reasons, the most important of which, perhaps, is that the extraordinary and discriminatory burdens which this bill would impose upon the railroads would so handicap the railroad industry in the intensive competition with which it will be faced in the postwar period as seriously to impair the ability of that industry to continue to furnish the best form of social security which has ever been discovered; that is, the providing of good jobs at good wages."

**Earlier Bill Dropped**—Meanwhile Mr. Alderman had outlined developments leading up to the introduction of H. R. 1362. These developments began "several years" prior to 1942 with the initiation of work by Mr. Latimer, in collaboration with R. L. E. A., "on the drafting of some very extensive legislative proposals, centering around a proposed new federal workmen's compensation bill to be enacted as a substitution for, or as a partial substitution for, the Federal Employers' Liability Act." Committee prints of such a bill were circulated, but eventually the workmen's compensation idea was dropped, for the time being at least, and a liberalizer of the retirement and unemployment insurance acts appeared. This was the former Crosser bill on which some hearings were held last year. Like a somewhat similar Senate bill, sponsored by Senator Wagner, Democrat of New York, it was framed to become a Railroad Social Insurance Act which would have embodied the present retirement and unemployment acts and the liberalizing amendments.

When R. L. E. A. abandoned hope of putting over that program in the last Congress, it dropped the codification idea for a shorter bill carrying only the liberalizing amendments. Such a bill was introduced by Mr. Crosser last December, shortly before the seventy-eighth Congress adjourned sine die. H. R. 1362 is what might be called a "perfected" version of this December bill, and an identical bill, S. 293, has been introduced in the Senate by Senator Wagner. "So," as Mr. Alderman puts it, "it was not until January 11, 1945, that we were faced with identical bills in the Senate and in the House, and which we might assume, until indication of further change and amendment, represented the final form of the bill proposed by the proponenents."

**Plans Kept Secret**—This history "of the various proposals, bills, rewritten and amended bills," convinces the railroads that "whatever may have been the purpose of the proponents, if they had deliberately set out to make it as difficult as possible for the railroads to know with what they were faced and to make reasonable preparations to present their case in opposition, the proponents could not have gone about accomplishing that end in a more successful way than the way they have followed."

Previously, Mr. Alderman had emphasized that the railroads were not consulted at any stage of the studies or draftings of the various bills. They were not consulted by R. L. E. A. nor by Retirement Board Chairman Latimer, "who is supposed to be the representative of the public and a neutral as between conflicting interests of railroad employees and the railroads." Thus H. R. 1362 and its predecessors have been prepared and drafted as "unilateral, partisan proposals," in collaboration between Mr. Latimer and R. L. E. A., and with "complete disregard of the views, rights, and interests of the railroads." Moreover, as Mr. Alderman also pointed out, the bill was drafted without any consultation with the Brotherhood of Locomotive Engineers or with the Brotherhood of Railroad Trainmen—two "important brotherhoods," representing "about two-thirds of the train-service employees," who "do not support the bill."

Coming to his discussion of management's differences with the bill's proponents, Mr. Alderman assured the committee that there would be no debate as to the changes which H. R. 1362 would write into existing laws. Mr. Latimer, he said, knows how to analyze the bill as does D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen and chairman of the R. L. E. A. committee working on the measure.

**Difference on Principle**—"Where we differ from the proponents," the Southern's general solicitor continued, "is on questions of principle, on the significance of the proposals, on their fairness and reasonableness, on the discriminatory treatment the bill would mete out to railroads as compared with all other industries, on the costs that would be involved, on whether it is fair, reasonable or equitable to impose on the railroads discriminatory costs and tax burdens for the care of non-industrial and purely social, human needs, when general social security or social insurance legislation has gone to no such lengths for all other members of society and has imposed no such burdens on other industries.

"The big question here raised is whether this vital public-service industry, the railroads, in the midst of a world war without precedent in history, and to the prosecution of which the railroad industry is absolutely vital and indispensable, is to be made the guinea pig for experiment in the field of purely social legislation in advance of developments in the broad field of social legislation itself."

**Mr. Latimer's "Guinea Pig"**—Excerpts from the earlier testimony of Mr. Latimer were interpreted by Mr. Alderman as indicating that the R. R. B. chairman did regard it as fair and reasonable to pick out the railroads for "guinea pig experimentation." The Southern's general solicitor proposed to meet Mr. Latimer "head-on," asserting "our philosophy is wholly opposed to his," which "is an effort to put the legislative cart before the horse." If Congress agrees with Mr. Latimer "that wartime is the right time for major social insurance legislation," Mr. Alderman continued, "then let Congress make its major social insurance experiments in the major general social insurance field, and subject the railroads to the same experiments to which all other industries are subjected."

Looking over the Robertson and Latimer presentations, Mr. Alderman pointed out that the former listed seven changes proposed in H. R. 1362 as dealing with matters about which the employees are "vitally concerned." Mr. Latimer's analysis of the bill listed 90 amendments to existing law, including 19 which he regarded as the most important. "It was interesting to note the different approach of Mr. Latimer," said the A. A. R. counsel. "He is a technician, an administrator, a professional social scientist. He obviously has a lot of professional and technical hobbies to ride. And he is riding them in this bill, regardless of the fact that the proponent employees are not vitally interested, but every time he rides a hobby it costs the railroads money or puts them to unnecessary trouble."

**Railroads Already at Disadvantage**—Mr. Alderman contrasted the taxes paid by the railroads under the retirement system with the much lower levies paid under the general social security system by other industries, "including the railroads' principal competitors by bus and truck, by waterway, by pipe line, and by air." Not only are the social security taxes lower than the railroad retirement taxes, but they apply only on compensation up to $3,000 a year, whereas the railroad retirement taxes are paid on compensation up to $3,600 per year. While on the subject of taxes, Mr. Alderman expressed doubt that the bill should be before the interstate commerce committee, since it "does not even purport to represent an exercise of the commerce power. It is a proposal to resort solely to the power to tax and to the power to appropriate and spend." It thus "seems clear" that it "properly" comes within the jurisdiction of the ways and means committee where "the Social Security Act and all questions under it have always been handled."

The "right approach" to the problem, Mr. Alderman suggested, is indicated in the pending resolution (Senate Concurrent Resolution 3) sponsored by Senator Vandenberg, Republican of Michigan, for an investigation of the social security system. A report on the investigation would be due October 1, 1945. "It would be a distinct anomaly," the Southern's general solicitor went on, "to have such a broad study going forward . . . and at the same time to have the committee on interstate and foreign commerce rushing in to deal peacemeal with what is solely a fiscal and tax problem, by setting up a preferential system for railroad employees and by imposing discriminatory tax burdens on railroads, in a field which is part and parcel of the general social security problem."

**Present Law Agreed To**—Summarizing the railroads' main objections to the bill, Mr. Alderman, among other observations, recalled how the labor-management agreement on the present retirement act "was highly praised in Congress, in government circles, and in the press as the outstanding example of cooperative collective bargaining and industrial statesmanship in the history of this country." The way in which "this unilateral and partisan bill" has been prepared and presented, he added, "is a complete departure by the proponent organizations from that cooperative, collective bargaining, and industrial statesmanship which was so highly praised in 1937." In this connection, the railroads think the proper position was taken by the B. of L. E. when it asked the committee to take

no action on the bill until an effort has been made to get together in collective bargaining conferences.

The "major and most costly" change which the bill proposes in the retirement system, Mr. Alderman said, is the proposal "to engraft upon it the wholly foreign feature of life insurance annuities for survivors of railroad employees and pensioners."

The most costly amendment to the unemployment act would be the proposal "to engraft upon the system set up by that act the new and wholly unprecedented features of health and accident insurance for employees to be financed at the sole expense of the railroads." Also, there is the proposal to increase the unemployment benefit period from 100 days to 130 days in a single benefit year. Mr. Alderman asserted that, under provisions of the bill, a person qualifying for maximum unemployment and sickness benefits in a single benefit year would draw benefit payments for 50 weeks of that year.

**Cost, $100 Millions**—Under the bill, the retirement act tax would be increased 5 per cent, becoming 11½ per cent of payroll and rising to a maximum of 12½ per cent after December 31, 1951. These taxes are paid half by the employees and half by the carriers, the carriers paying, in addition, the entire unemployment insurance levy of three per cent of payroll. The bill proposes no increase in the latter, for it has already produced a fabulous reserve, which is considered adequate to support the liberalized benefit set-up proposed.

Mr. Alderman put the immediate increase in costs to the railroads at $100,000,000 a year on the basis of a $4 billion payroll. Later on, he calculated that this "additional fixed charge of 2½ per cent of payrolls" would be equivalent to imposing interest charges on an increase in funded debt of approximately $2¼ billion, as compared with the debt reduction of about one-half billion dollars which railroads, other than those undergoing reorganization, have been able to achieve since 1939 by devoting increased net earnings to debt retirement rather than to larger dividends.

The employees would pay a like amount in increased payroll taxes, bringing to $200,000,000 a year the total of new taxes provided in the bill. Of this, $94,000,000 a year would go to cover the new survivor annuity benefits. Adding the new taxes proposed in the bill to the present levies, the total for retirement and unemployment insurance purposes would become $620,000,000 a year. In discussing figures of that kind Mr. Alderman said he was "not speaking of what the vernacular calls 'hay.'" And still there would remain "grave doubt that even these greatly increased tax rates and burdens would be sufficient to insure the solvency of these systems."

**Latimer's Shifting Figures**—This brought Mr. Alderman to his appraisal of estimates presented by Mr. Latimer. He said that at last May's hearings on the codified bill which was before the previous Congress, the R. R. B. chairman presented to the committee a table of estimates of increased costs or savings to be expected from each of the principal amendments proposed. "Nine days later, in the course of his further oral testimony," Mr. Alderman went on, "he completely revised this table of estimates, changing every figure in it but one. In his testimony of February of this year he again completely revises that table, again changing every figure in it but one to a different figure from that to which he testified on May 23 and to a still different figure from that to which he testified on June 1 of last year. But he always added up to the net total of five per cent which is the tax increase he was then proposing and is now proposing."

These Latimer estimates, according to Mr. Alderman, have not been reviewed by the actuarial advisory committee which the retirement act provides for the purpose of appraising the system at regular intervals. The latest report of this actuarial committee showed that the present retirement tax should be increased from 6½ per cent of payroll to about 10.45 per cent in order to support existing benefits. Mr. Latimer estimated that the present deficiency would be made up by levying an additional tax of only 1½ per cent of payroll. It is the railroad position that the Latimer estimates are "utterly unreliable and that passage of this bill would be a serious threat to the integrity of the railroad retirement system."

**Job Tax Too High**—Coming to the financial condition of the unemployment insurance system, Mr. Alderman emphasized how it has been "grossly overfinanced." In spite of the 1940 amendments which "practically doubled the benefits," the three per cent tax "is still shown to be grossly excessive and there has piled up in the Unemployment Insurance Account the tremendous surplus of $572,000,000." Total benefits since 1939 have aggregated only about $44,000,000, an average of $8,200,000 annually, and are now running at the rate of less than $600,000 annually. The railroads are paying into the account at the rate of more than $120,000,000 a year.

Mr. Alderman recalled that Mr. Latimer joined with the railway labor organizations in supporting the 1940 amendments—"instead of joining the railroads in their insistence that the grossly excessive tax on them be reduced." The unemployment fund, the A. A. R. counsel continued, has now become "a bureaucrat's paradise for the creation of new benefits to eat into this surplus." He suggested that it was perhaps "too much to expect of human nature that Mr. Latimer should suggest that Congress give the railroads some relief from this excessive taxation." In the last analysis, he added, "there is no argument to support the amendments which the bill proposes to make to the Unemployment Insurance Act except that there is piled up over half a billion dollars to spend; therefore, let's advise new purposes and new objects for which Mr. Latimer's board can spend it for the benefit of the employees."

**Court Test Suggested**—Next Mr. Alderman outlined in some detail the history of the present retirement act with special emphasis on the fact that it was based "upon a binding agreement of all of the interested parties, upon which agreement Congress put the seal of its approval." The present proposals mark a departure from the spirit, if not the letter, of that agreement, he insisted. Meanwhile the railroads "have kept that agreement to the letter and to the spirit." In that connection they have adhered to their pledge not to challenge the constitutionality of the act; but Mr. Alderman intimated that enactment of H. R. 1362 might send them back to the courts. He suggested that certain features of the bill, among them the provision to accord prior-service credits to red caps, "fall clearly within the unanimous holding of the Supreme Court (with respect to the 1934 act which was ruled unconstitutional); and the enactment of the bill in my considered opinion, would gravely threaten the constitutional validity of the entire retirement system."

## N. Y. Railroad Club to Hear Perlman on Research

"Future Possibilities in Railroad Research" will be discussed by A. E. Perlman, chief engineer, Denver & Rio Grande Western, when the New York Railroad Club meets on March 15, in the Engineering Societies building, 33 West 39th Street, New York. In addition, Mr. Perlman, who is chairman of the Engineering and Mechanical Research Subcommittee, Railroad Committee for the Study of Transportation, A. A. R., will offer a short color film taken in the D. & R. G. W. laboratory, showing the change in firebox design accomplished through fluid flow studies.

## Court to Hear Motion to Dismiss Government Anti-Trust Suit

Federal Judge John W. Delehant at Lincoln, Neb., last week set May 31 as the date upon which he will hear oral argument on a motion by the Western Association of Railroad Executives with other defendants to dismiss the United States government suit against western railroads charging violations of the anti-trust laws. The suit names, in addition to the Western Association of Railroad Executives, the Association of American Railroads and a number of individuals and firms and charges all defendants with violating the Sherman Act by alleged illegal agreements as to freight rates and fares. (For particulars concerning the filing of this suit, see *Railway Age*, August 26, 1944, page 340.)

The court has set dates for filing of briefs as follows: Defendants, April 1; plaintiffs, April 21; reply by defendants, May 15, and by the plaintiffs, May 22.

## Railroads Win Illinois Intrastate Fare Cases

The Supreme Court of the United States, in *per curiam* decisions handed down February 26, has dismissed appeals from, and thus upheld, the findings of the Illinois Supreme Court in a group of cases in which that court voided orders of the state commerce commission denying increases in intrastate commutation fares. The railroads involved were the Illinois Central; Chicago, Rock Island & Pacific; Chicago, Burlington & Quincy; Chicago, Milwaukee, St. Paul & Pacific; and Chicago, North Shore & Milwaukee.

The legal background of these companion cases was noted in *Railway Age* of September 30, 1944, page 523, where the state court's decision was reported. The roads had sought authority to increase their in-

trastate fares 10 per cent to keep them in line with interstate fares when the latter were increased by authority of the Interstate Commerce Commission in the Ex Parte 148 proceedings, but the state commission had rejected the proposal, holding that the roads were receiving a reasonable return upon their investment, taken as systems, that evidence showing loss on suburban services was immaterial, and that some of the roads had not notified the Office of Price Administration of pendency of the proceedings when the requirement that that office be given notice of contemplated fare increases became effective on September 15, 1942.

The state supreme court reversed judgments affirming these state commission findings, holding that the commission's jurisdiction was not affected by failure to notify the O. P. A., since the statute only gives that agency the right to be heard, that the commission's orders were not based on evidence, and that the railroads had been denied due process of law through the commission's refusal to consider evidence of loss sustained in suburban operations.

The state court's opinion was appealed by the commission, which claimed that its orders were supported by the evidence, that it could not determine whether commutation service resulted in loss without perspective of the entire system operations, that showing required by the law to support increases had not been made, and that the commission was without jurisdiction since the O. P. A. had not been advised of pendency of the proceedings. These appeals were dismissed by the Supreme Court with the comment that the judgment of the court below was based on adequate "non-federal" grounds.

## Aluminum Box Cars

Three aluminum box cars, which for the first time incorporate aluminum superstructure frames as well as sides, ends, roofs, doors, etc., were recently completed at the Mt. Vernon, Ill., plant of the Mt. Vernon Car Manufacturing Company, a division of the H. K. Porter Company, Inc., of Pittsburgh, Pa. These cars, built in conjunction with the Reynolds Metals Company, using Reynolds aluminum, comprise part of an order for 30 cars, or 10 cars each, now being constructed for the Alton, the Chicago, Rock Island & Pacific, and the Minneapolis & St. Louis.

The cars have the same general dimensions as conventional 50-ton box cars and are designed to meet all A. A. R. requirements. Some of them are equipped for head-end service in either local or high-speed passenger trains. The first three sample cars were given a preliminary inspection at Mt. Vernon on February 19 by a large group of railway and supply company officers. They were placed on public display at the La Salle Street Station, Chicago, on February 27, and then delivered to the individual carriers for immediate movement into revenue service.

## Railroads as Post-War Users of Light Metals

The Senate special committee to study and survey problems of small business enterprises, of which Senator Murray, Democrat of Montana, is chairman, on February 27 began protracted hearings on the "future of light metals," at which spokesmen for government agencies and producers and users of aluminum, magnesium and related materials are scheduled to be heard. The committee's tentative calendar provides for a discussion on March 7 of the present and future uses of the light metals, in which J. J. Pelley, president, or R. V. Fletcher, vice-president, research of the Association of American Railroads, and Brig. Gen. Charles D. Young, deputy director of the Office of Defense Transportation, are among those expected to participate.

The future of the aluminum industry was the topic scheduled for the appearance on February 28 of R. S. Reynolds, president of Reynolds Metals Company. In his statement, Mr. Reynolds reviewed the competitive situation in that industry, its wartime expansion, and its post-war prospects. He predicted that railroads, bus and truck builders, and airplane manufacturers would consume immense quantities of aluminum after the war ends.

"Aluminum possesses great advantages for use in building freight cars," he told the committee. Because it is much lighter than steel, "its use could reduce the center of gravity of the cars so that it would be possible to haul them at faster speeds and with less motive power. Consequently, fewer cars would be needed. Also, because of the good insulating qualities of aluminum, it would not be necessary," he said, "to use as much ice in refrigerator cars, and it would be possible to carry larger amounts of produce.

"The resistance to corrosion afforded by aluminum makes it ideally suited to the construction of tank and hopper cars," he went on to say. "After the war the railroads will require 100,000 new freight cars each year for at least 10 years. . . . They can be built of aluminum if the Association of American Railroads will change its per diem rule to allow the owner of the car to obtain a higher per diem for new and more efficient cars which will assure the railroads that build a better car at a higher price that the car will be kept in their own service or paid for at a fair rental." To build 100,000 cars of aluminum would require about one billion pounds of that metal, or nearly three times the 1939 production of the Aluminum Company of America, Mr. Reynolds observed.

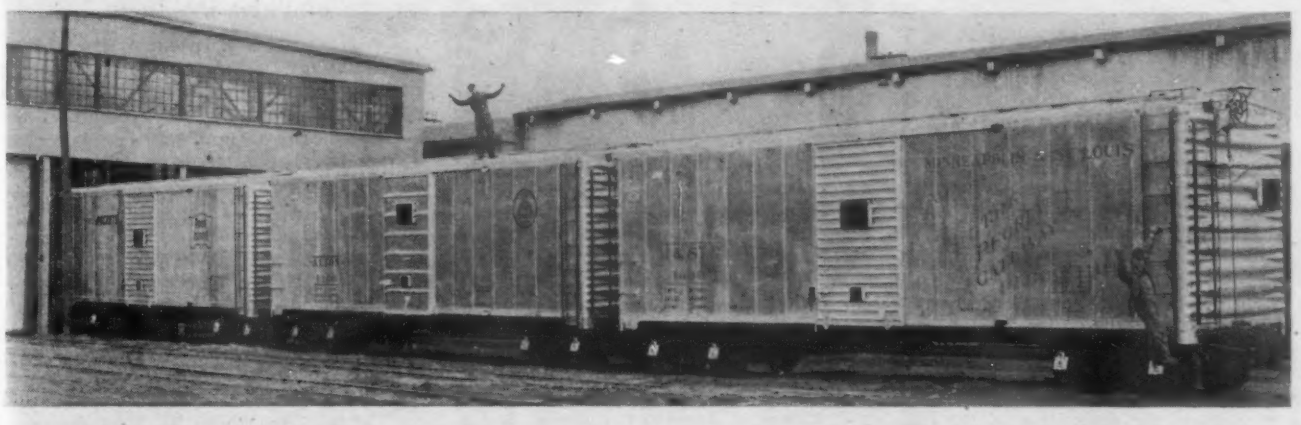
He also explained that "special demountable bodies" had been developed for fractional carload shipments, and that aluminum can be used in crossheads, connecting rods and reciprocating parts of locomotives, and in tenders.

After the war, the railroads will build about 1,000 passenger cars a year, said Mr. Reynolds, "at least 300 of which we expect will be made of aluminum. But that is only a small fraction of what should be built and of what will have to be built if the railroads expect to succeed in holding their passenger traffic in competition with airlines, buses and private automobiles." Three-fourths of the passenger cars now in service are over 15 years old, he continued, "and most of them should be replaced."

## Local Express Embargo in N. Y. Metropolitan Area

Effective midnight, February 28, the Railway Express Agency placed an embargo on local express shipments in the New York metropolitan area. The order applies to all shipments between the Boroughs of Manhattan and Brooklyn and to a limited extent in the Bronx. For the time being, as well, express shipments will not be accepted between New York and Jersey City, Hoboken, or any New Jersey cities on or adjacent to the Hudson river waterfront, as far north as Edgewater and Cliffside Park.

Shipments bearing government bills of lading will not be affected, nor will col-



**First Aluminum Box Cars Built at Mt. Vernon for the Alton, the Rock Island and the Minneapolis & St. Louis**

lection and delivery of express traffic, and checked baggage of passengers having prior or subsequent rail or air haul.

In expressing his hope that the situation would be of short duration, C. R. Graham, eastern operating vice-president, explained the move was made necessary by the severe congestion in local terminals, a still further increase in war express shipments, and a continuing shortage of man-power.

## P. R. R. Reveals How Taxes Deplete Officers' Salaries

The Pennsylvania in a circular letter to its stockholders reveals the 1944 salaries of its principal officers (1) as paid by the company and (2) as remaining net, to the recipient after payment of his federal income taxes. These salaries (which include directors' fees where the officer is also a director) are given as follows:

| Name & Position | Compensation | Approximate Compensation After Federal Taxes |
|---|---|---|
| M. W. Clement, Pres. | $110,585 | $21,712 |
| J. F. Deasy, Vice-Pres. | 60,805 | 20,695 |
| W. S. Franklin, Vice-Pres. | 60,565 | 20,649 |
| J. R. Downes, Vice-Pres. | 45,525 | 18,522 |
| Geo. H. Pabst, Jr., Vice-Pres. | 43,305 | 18,067 |
| C. D. Young, Vice-Pres. | 50,000 | 19,246 |
| Geo. Le Boutillier, Vice-Pres. | 37,700 | 16,931 |
| R. C. Morse, Vice-Pres. | 37,520 | 16,896 |
| E. W. Smith, Vice-Pres. | 37,760 | 16,949 |
| J. M. Symes, Vice-Pres. | 37,780 | 17,063 |
| *C. I. Leiper, Vice-Pres. | 22,500 | 12,588 |
| J. Taney Willcox, Sec. | 27,000 | 14,167 |
| H. W. Schotter, Treas. | 23,625 | 13,123 |
| R. C. Miller, Compt. | 27,500 | 14,768 |

* Retired during the year.

The circular also discloses fees paid to directors. In the case of directors who are not officers of the railroad, these payments in 1944 ranged from zero to $410 as a maximum. Remuneration of all officers shown in the foregoing tabulation, plus fees paid to directors, amounted to "less than one-tenth of one per cent of the company's revenues and less than two-tenths of one per cent of its total payroll."

Holdings of the company's stock by its directors are also listed in the circular. The minimum holding by any director is 10 shares of stock and the maximum ownership by any director is 1215 shares. Several directors, however, also own bonds of the company—one of them having $61,000 thereof. One of the directors, in addition, has "a ⅛ beneficial interest" in 4303 shares of stock and "a ½ beneficial interest" in $257,000 of bonds, and another director is president of an insurance company which owns upwards of $38,000,000 of P. R. R. bonds.

## St. Andrews Bay Line Ordered To Pay Regular Per Diem

Upon further hearing in the matter of rules for car hire settlement to be followed by the Atlanta & St. Andrews Bay, the Interstate Commerce Commission has found that that carrier should make settlements direct with car owners at the current per diem rate for the use of railroad-owned general service freight cars, without free time and without reclaim except on cars it handles in terminal switching service. Commissioner Lee did not participate in the disposition of the case, which was docketed as No. 17801, and the dissents of Commissioners Porter and Alldredge were noted.

In 1936, a special car hire settlement agreement was negotiated between the Bay Line and the Association of American Railroads, representing connecting carriers. Contending that its operations with respect to interline traffic are essentially those of a terminal switching road with a maximum line haul of 81 miles, the Bay Line took the position that connecting roads should continue to bear part of the car rental charge while cars are on its rails. The A. A. R., however, became convinced that the Bay Line should bear the full cost of car rentals, and petitioned the commission to prescribe "reasonable" rentals and rules for settlement applicable to that carrier, pointing out that since it is owned by a paper manufacturing company which provides most of its traffic, the car-hire allowance provided by the special agreement amounted to an allowance benefiting the owning industry.

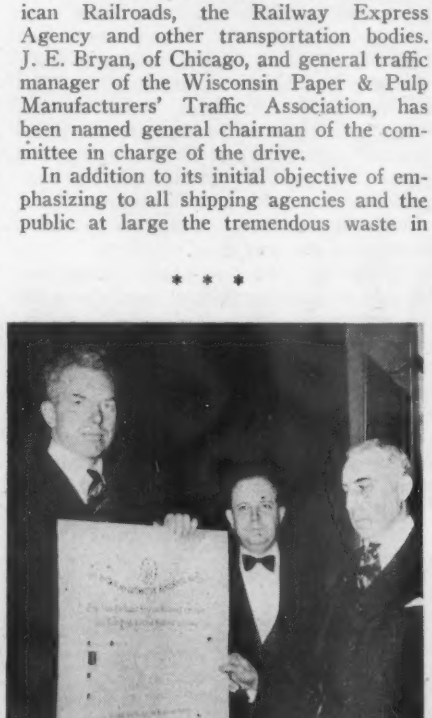
## Nation-wide Perfect Shipping Campaign Set for April

In an effort to stem the war-time waste of freight lost and damaged in transit, a loss hitting the $60 million mark in 1944, there will be held during the month of April another nation-wide "perfect shipping" campaign. Participants will include the 13 regional Shippers Advisory Boards, with their more than 23,000 shipper and receiver members, the Association of American Railroads, the Railway Express Agency and other transportation bodies. J. E. Bryan, of Chicago, and general traffic manager of the Wisconsin Paper & Pulp Manufacturers' Traffic Association, has been named general chairman of the committee in charge of the drive.

In addition to its initial objective of emphasizing to all shipping agencies and the public at large the tremendous waste in poor packing and improper handling of freight, the campaign will have a second purpose of improving packaging technique in preparation for the post-war period.

In announcing an intensive educational campaign to be carried on during that month, at all shipper, traffic, trade group and chambers of commerce meetings, Mr. Bryan emphasized that the 1944 losses had been one-third greater than in 1943, and said of this "tragic waste" that "our wits and resourcefulness are again challenged to cut this to a minimum."

* * *



**Centennial of New York & Harlem**

Carleton W. Meyer, (left) assistant to president, New York Central, receiving a scroll, commemorating the centennial of the New York & Harlem, from C. E. Fisher, national president of the Railway & Locomotive Historical Society. William T. Gaynor, chairman of the group's New York chapter, stands at rear

## A. A. R. Plans Film Library

The Association of American Railroads has disclosed a plan to develop a library of railroad films to be available for examination by commercial producers seeking footage showing railway subjects, and has solicited the deposit of films prepared by individual railroads The basis of the library is some 20,000 feet of film not used in the final version of the A. A. R. picture, "Lifeline of the Nation." It is intended to maintain one collection in the East and another at Carl Dudley Productions, 9724 Santa Monica Boulevard, Beverly Hills, Calif.

The A. A. R. also has revealed preliminary plans for another sound and color film to show as completely as possible all phases and aspects of railroading in various sections of the United States, the purpose of which would be to stress the importance of railroads to production, commerce and the daily lives of the American people.

## Consolidated Statements Not Required for 1944

Upon request of the Association of American Railroads, Division 1 of the Interstate Commerce Commission has waived, for the year ended December 31, 1944, its requirement that railroads with annual railway operating revenues of $10,000,000 or more file "consolidated statistical statements." The order requiring such statements was issued December 18, 1941, in spite of railroad opposition, and compliance by some roads has been under protest. A summary of the 1942 returns was made public by the commission's Bureau of Transport Economics and Statistics as its statement No. 4411, described in *Railway Age* of October 21, 1944, page 629.

## To Investigate Transportation of Farm Products

The House on February 26 passed House Resolution 54, introduced by Representative Flannagan, Democrat of Virginia, authorizing the committee on agriculture, or a subcommittee thereof, to investigate the marketing, transportation and distribution of farm products, "with a view to ascertaining, among other things," "the present and prospective development of the types and methods of transportation for farm products, and the existence, if any, of discrimination in railway freight or in motor carrier rates on farm products in the various areas."

In the course of the discussion preceding passage of the resolution, Representative Stefan, Republican of Nebraska, informed the House that "we have 100,000,-

000 bushels of corn—wet corn—lying on the ground in the state of Nebraska. Much of it is in great danger of being spoiled because of lack of cars for transportation to the elevators. . . . The elevators are filled. We have been endeavoring to get transportation equipment, but have been unable to." He urged the committee to turn its attention immediately to this "persistent and unsolved" Nebraska corn problem.

Although a similar investigation was authorized by the preceding Congress, it did not get beyond the "groundwork" stage, partly because of personnel problems, according to Representative Hope, Republican of Kansas, but he assured the House that the committee was now ready to carry out the investigation "vigorously."

## Aitchison Going to Brazil

In response to an invitation from Associacao Commercial de Sao Paulo—one of Brazil's commercial organizations—extended through the Office of Inter-American Affairs, Interstate Commerce Commissioner Clyde B. Aitchison, senior member of the commission, will depart about March 15 for a six-week visit to Brazil where he will speak before the above and other commercial, engineering and technical gatherings in Sao Paulo and Rio de Janeiro and discuss with them "various phases of the transportation problems which are mutual to our two nations."

Mr. Aitchison will take with him a number of films on the railways, waterways and highways of the United States, and will address the Sao Paulo Association on the following subjects: The Railroad Transport Systems and Allied Railway Services of the United States; Other Means of Domestic Transportation—Motor Carriers, Inland and Inter-Coastal Waterways and Pipelines; A Resume of the Means Employed to Adjust the Relationships between Common Carriers, Shippers and the Government; The Problems Which Confront United States Transportation Today.

## Representation of Employees

As the result of an election, the National Mediation Board has certified the Association of Railroad Maintenance of Way Supervisors as the representative for the purposes of the Railway Labor Act of the previously unrepresented "subordinate officials" in the maintenance of way and structures department of the Southern Pacific. A similar election on the Northwestern Pacific failed to win a majority for this union, and that class of employees on that road continues without certified representation.

The board has closed its investigation of a dispute as to representation of Southern Pacific road conductors, as the Brotherhood of Railroad Trainmen, which had invoked its services, has withdrawn such request, leaving the Order of Railway Conductors as the designated representatives.

Passenger representatives of the Atlantic Coast Line have selected the Brotherhood of Railroad Trainmen and station masters of the Seaboard Air Line have selected the Railroad Yardmasters of America as their respective representatives under N. M. B. procedures. Neither class was represented when the election was ordered.

As the result of a 4-to-4 tie vote, the designation of the Brotherhood of Railroad Trainmen to represent the yardmasters of the Norfolk & Portsmouth Belt Line remains undisturbed. It had been challenged by the Railroad Yardmasters of America. The unrepresented coach porters of the Fort Worth & Denver City have selected the Joint Council Dining Car Employees, Local 351, A. F. of L., as their representative.

## Emergency Board Reports

The White House has made public emergency board reports received by President Roosevelt in six proceedings which involved disputes between employees and the Central of Georgia, Kentucky & Indiana Terminal, Missouri-Kansas-Texas, Railway Express Agency, and Texas Electric. The C. of Ga. and K. & I. T. boards were appointed by the President under section 10 of the Railway Labor Act when the controversies brought strike threats; the other four cases (there were two separate M-K-T proceedings) were heard by National Railway Labor Panel boards appointed by Panel Chairman H. H. Schwartz.

**Whose Cabooses?** — The Central of Georgia case involved a controversy between the Brotherhood of Railroad Trainmen and the Order of Railway Conductors with the management "in the middle." The board's report summarized the principal matter in dispute as follows: "While most of the discussions involved the question of the monthly mileages to be given to the conductors or trainmen before crews shall be taken off or added on to the pools in 'First-in First-out Pool Service,' the question apparently uppermost in the minds of the parties and underlying the question of mileage was the question of whether the cabooses in which both the conductors and trainmen keep their work clothes and other personal belongings should be assigned to the conductors or to the trainmen." As the board pointed out, the question does not arise if the trainmen and conductors work the same monthly mileages, for the crews are not then separated.

The report is in the main an account of various unsuccessful (or only temporarily successful) efforts of the B. of R. T. and the O. R. C. to get together on a joint agreement fixing monthly mileages for both trainmen and conductors in pool or irregular crews at the same level. The board brought about a settlement whereby such a joint agreement was entered. Under one of the agreement's provisions, the C. of Ga. assumes the obligation of making the required adjustments in crews. The board commended the railroad for its willingness to assume this responsibility, adding that this provision of the agreement "is stated to be an innovation in general railway practice throughout the country."

Another matter which came before the board was the B. of R. T.'s protest against a management-O. R. C. agreement concerning the deadheading of pool crews, conductors, and trainmen moving up from the ranks of trainmen. The objection of the B. of R. T. was based on the agreement's provision "for holding trainmen off their regular runs or runs to which they had been called in order to deadhead such men as conductors." Further conferences and negotiations, the board said, have re-

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**An Artist's Conception of the Post-War Port of Boston**

Andre Durenceau, New York muralist, putting the finishing touches on one of the two 7 ft. by 30 ft. canvases on display in the "Greater Boston Looks Ahead" exhibition, held at the Boston Art Museum —The murals, one of the principal features of the exhibit, have been presented jointly by the Boston & Albany, Boston & Maine and the New Haven, and are intended to portray the dominant role railroads will play in the port's future, as well as their continued influence in further developing and expanding industrial and recreational New England

sulted in a new agreement which is "not objectionable" to the B. of R. T.

The strike ballot, which was circulated by the B. of R. T., listed nine other matters in dispute, but they had either been adjusted or a method of adjustment agreed upon between the time of the board's appointment and its convening for hearings. Members of the board were: Chairman H. Nathan Swain, former justice of the Supreme Court of Indiana; Ridgely P. Melvin, justice of the Maryland Court of Appeals; and Russell Wolfe, attorney of Philadelphia, Pa.

**Light-Engine Movements**—The dispute on the K. & I. T. involved demands of the B. of R. T. for acceptance by the management of National Railroad Adjustment Board awards in certain cases as precedents for the disposition of other cases. The cases involved claims of interested employees for wages in instances where engines were run light outside the immediate roundhouse area without use of a yardman pilot; and in instances where they were required to perform switching in a foreign yard. In the former connection the emergency board recommended that the Adjustment Board award relied upon by the B. of R. T. be accepted as a precedent for cases where the light-engine movements involve main line tracks, as did the movement in the case which the Adjustment Board decided. As to the claims involving other light-engine operations it recommended a negotiated settlement or recourse to the Adjustment Board by either party. With respect to the foreign-yard switching claim, the emergency board recommended that B. of R. T. return to the Adjustment Board which it left when it thought it had a precedent for settlement.

Members of this emergency board were: Chairman Ernest M. Tipton, judge of the Missouri Supreme Court; Brigadier General H. S. Hawkins, retired; and Arthur E. Whittemore, Boston, Mass., attorney.

The M-K-T disputes involved wages and working rules of employees represented by the Brotherhood of Railway Clerks and Brotherhood of Railroad Signalmen. In the Clerks' case the board held that time-and-one-half should be paid for Sunday work, and also established a formula for determining the rate to be paid certain individual positions which have been subject to a number of wage increases and decreases since the depression. Also it granted some changes in working rules, but denied others.

**Signal Foremen**—In the Signalmen's case, the board recommended that the wage rate of foremen be established at 5 cents per hour above the rate of leading signalmen and leading signal maintainers. In accordance with the Stabilization Extension Act of 1944, the board certified that the recommended adjustments were "consistent with standards now in effect, established by or pursuant to law, for the purpose of controlling inflationary tendencies."

Members of the board were: Chairman James H. Wolfe, justice of the Supreme Court of Utah; John A. Lapp, industrial relations consultant of Chicago; and A. G. Crane, former president of Wyoming State University.

The Railway Express Agency case involved a demand of an International Brotherhood of Teamsters local for equalization of rates of pay of drivers in a number of New Jersey cities with those of drivers employed in New York. The board rejected the demand, holding that to grant it would upset a long-established wage-rate relationship and would be contrary to existing stabilization regulations. Members of the board were: Chairman Richard F. Mitchell, former judge of the Iowa Supreme Court; Walter Gilkyson, attorney of New Hartford, Conn.; and Norman J. Ware, industrial relations consultant of Hartford, Conn.

The Texas Electric dispute involved a demand of the Brotherhood of Maintenance of Way Employees for a working agreement, and the board got the parties together on such an agreement. Members of the board were: Frank M. Swacker, attorney of New York; and Messrs. Lapp and Crane, who served also on the M-K-T board, as noted above.

## Plan Probe of Berth "Scalpers"

The first official move to abolish the "scalping" of Pullman reservations in Illinois was launched at Chicago last week when the Illinois State Senate investigating committee announced that plans have been completed for calling as witnesses more than 400 present and former employees of railroads serving Chicago. At the same time Chairman Arthur J. Bidwell (Rep., 7th District), put teeth into the coming hearing by announcing that the full contempt powers of the State Senate would be turned upon any who refuse to testify.

While the Chicago meeting was merely a gathering called for the purpose of planning procedure, it was revealed that definite action has been voted and that the first actual hearing will take place on March 10, with 15 voluntary witnesses slated to take the witness stand. That this number will probably be increased was indicated by a statement of Bidwell in which he declared that "all persons having grievances" against black-market operations in such transportation "are invited to appear."

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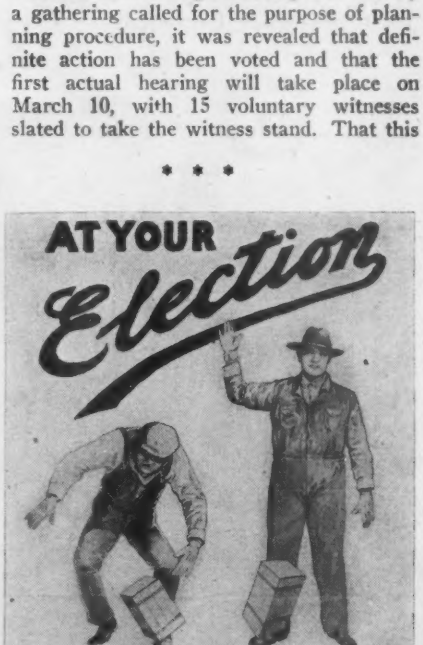


**Poster No. 257, Which Constitutes the Current Installment of the "All the Year-Every Year Safety Program," and Which Is Now Being Distributed by the Committee on Education, Safety Section, A. A. R.**

## Freight Car Loading

Loadings of revenue freight for the week ended February 24 totaled 771,843 cars, the Association of American Railroads announced on March 1 This was a decrease of 11,895 cars or 1.5 per cent below the preceding week, a decrease of 9,141 cars or 1.2 per cent below the corresponding week last year, and a decrease of 11,078 cars or 1.4 per cent below the comparable 1943 week.

Loading of revenue freight for the week ended February 17 totaled 783,738 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

**Revenue Freight Car Loading**

| For the Week Ended Saturday, February 17 | | | |
|---|---|---|---|
| District | 1945 | 1944 | 1943 |
| Eastern | 152,531 | 153,688 | 142,654 |
| Allegheny | 169,961 | 173,782 | 156,582 |
| Pocahontas | 53,321 | 53,674 | 54,659 |
| Southern | 129,835 | 117,572 | 122,542 |
| Northwestern | 81,223 | 86,687 | 83,481 |
| Central Western | 124,988 | 120,272 | 118,207 |
| Southwestern | 71,879 | 68,562 | 73,894 |
| Total Western Districts | 278,090 | 275,521 | 275,582 |
| Total All Roads | 783,738 | 774,237 | 752,019 |
| Commodities | | | |
| Grain and grain products | 43,036 | 50,737 | 51,603 |
| Live stock | 13,963 | 15,161 | 13,179 |
| Coal | 166,607 | 178,364 | 173,452 |
| Coke | 14,749 | 15,245 | 14,292 |
| Forest products | 39,815 | 40,526 | 41,139 |
| Ore | 12,538 | 13,127 | 11,097 |
| Merchandise l.c.l. | 103,047 | 100,676 | 90,299 |
| Miscellaneous | 389,983 | 360,401 | 356,958 |
| February 17 | 783,738 | 774,237 | 752,019 |
| February 10 | 755,436 | 793,181 | 765,271 |
| February 3 | 738,680 | 805,714 | 755,514 |
| January 27 | 758,870 | 810,890 | 734,670 |
| January 20 | 777,320 | 798,650 | 703,294 |
| Cumulative Total, 7 Weeks | 5,279,398 | 5,531,832 | 5,183,442 |

*In Canada.*—Carloadings for the week ended February 17 totaled 65,811 as compared with 65,424 for the previous week and 65,623 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

| Total for Canada: | Total Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Feb. 17, 1945 | 65,811 | 39,071 |
| Feb. 19, 1944 | 65,623 | 38,974 |
| Cumulative Totals for Canada: | | |
| Feb. 17, 1945 | 443,157 | 240,135 |
| Feb. 19, 1944 | 470,063 | 267,497 |

## Tighter Curbs on Rail-Owned Trucks Suggested

The Interstate Commerce Commission has reopened for reconsideration certain proceedings in which the Rock Island Motor Transit Company, a highway vehicle operator affiliated with the Chicago, Rock Island & Pacific, was permitted to acquire other motor carriers. The purposes of the order are "solely to determine (a) the conditions or restrictions, if any appear necessary, which should be imposed to insure that the motor carrier service performed by the Rock Island Motor Transit Company is limited to that which is auxiliary

to, or supplemental of, rail service, and (b) the condition, if any appears necessary, which should be imposed so as to make the authority granted" the transit company subject to subsequently imposed restrictions to the same effect.

The proceedings involved are MC-F-445 (purchase of White Line Motor Freight by Rock Island Motor Transit), MC-F-2327 (purchase of J. H. and D. H. Frederickson by Rock Island Motor Transit) and MC-29130 (common carrier authority of Rock Island Motor Transit). The order to reopen follows a finding by Division 5 in the so-called Campbell case (reported in *Railway Age* of August 26, 1944, page 348) that railroads purchasing independent truck lines do not acquire operating rights as broad as those enjoyed by the vendors, but must confine their services to those auxiliary or supplemental to rail operations.

The division's finding in the Campbell case will come before the full commission in further argument in that proceeding (MC-C-293), scheduled for March 16. As noted in *Railway Age* last week, page 392, a different and broader interpretation of the acquisition-of-control provisions of section 5 of the Interstate Commerce Act than that of the division was advanced by Examiner John S. Higgins in a proposed report in the MC-F-2529 proceeding.

## Cuts Some Railroad Rates on Automobiles

(*Continued from page 426*)

portation, as well as good service at the lowest available rates. The rails carry the major portion of the long-haul traffic, because they provide the best mass transportation readily available for such traffic at lower rates than other agencies, except possibly the coastal and intercoastal water lines. The motor carriers, for very short hauls, have the advantage of generally lower costs, reflected in lower rates than the other agencies maintain; also the best service. The latter factor undoubtedly weighs heavily in the motor carriers' favor within areas of distribution beyond those where their costs are the lowest, despite rail rates made to offset the motor carriers' natural advantage. . . . Unless future rate changes are substantial in amounts they would not appear capable of altering, in any substantial degree, the present general distribution of the traffic among the different modes of transportation competing therefor.

**Few Rates Too Low**—"To meet competition, carriers of course may reduce their rates to reasonable minimum levels. Although, in general the conclusion is warranted that the rates under consideration have not gone below those levels, there are, as previously noted, some instances where, according to the bureau's cost study, rates are below a compensatory level, as in the case of a few of the rail rates from some of the assembling points and some of the truck hauls from the manufacturing points. However, because of the delicate integration of the rate adjustments and the many imponderable factors affecting them, we do not believe that action by us requiring increases in the few rates as to which the cost studies raise doubt is warranted at this time. The minimum rates of the contract carriers are well above a compensatory level, and in most instances are highly profitable. We are not convinced that they are unlawful, and, therefore, we cannot require them to be increased merely to benefit the common carriers.

"Increases in the rates of the railroads and of the motor common carriers which may have been reduced almost to a noncompensatory level, would undoubtedly cause a further loss of generally profitable traffic by such carriers, if the contract carriers were able to operate profitably under lower rates, as they have heretofore. . . . There should be no further reductions in rates on automobiles that are already down close to a noncompensatory level, and increased cost of operation should stimulate the carriers collectively to eliminate the depressed areas in their rate structures. In such an endeavor they should have the cooperation of the shippers, to whose interest it is that the transportation agencies of the country be maintained in a healthy condition. If the resumption of automobile production brings on a renewal of unjustified rate cutting among the carriers, action on our part with respect thereto will become necessary."

Finally, the commission found that differences in competitive conditions justify rail rates from assembling points on lower bases than from manufacturing points. It added that the differences between assembling and manufacturing points are "so pronounced as effectively to refute" Chrysler Corporation's allegations of undue preference and prejudice.

Commissioner Patterson, in a brief concurring-in-part expression, notes the present range of rail rates from 30 to 100 per cent of first class, adding: "If, as the majority finds, 75 per cent of first class will result in maximum reasonable rail rates, it seems to me manifest that minimum reasonable rates would be not less than about 50 per cent of first class." Commissioners Porter and Mahaffie concurred "in the results" of the majority report, while Commissioner Aitchison did not participate.

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**Swiss Still Run Sports Trains**

An electrified mountain railway in 1 hr. 10 min. negotiates the 5½-mile climb from Zermatt to Gornergrat, Switzerland, a favorite retreat for winter sports fans.

## Would Amend Transportation of Explosives Act

Representative Harris, Democrat of Arkansas, has introduced H.R. 2382 "to amend the Transportation of Explosives Act with respect to quantity of explosives which may be transported under special conditions." The bill would further define the types and amounts of explosives which may be carried on passenger trains.

## Allied Vans Case Reopened

The Interstate Commerce Commission has reopened, for oral argument and reconsideration, the No. MC-15735 proceeding involving the status of Allied Van Lines, Inc. The oral argument will be held at Washington, D. C., March 22. As noted in the *Railway Age* of November 18, 1944, page 789, Division 5's order (now set aside by the commission) would have accorded carrier status to Allied, the division finding that a certificate should be issued authorizing continuance of operations as a common carrier by motor vehicle of household goods over irregular routes between all points in the United States.

## Approved 8,435 Miles of New Air Routes in 1944

The network of air routes available for the transportation of passengers, mail and cargo in the United States was increased by a record-breaking mileage in 1944, according to a survey issued by the Air Transport Association of America. The new routes authorized by the Civil Aeronautics Board during the year totaled 8,435 miles, and the total for the domestic airlines at year-end reached the all-time high of 62,937 miles, to which 600 more miles have already been added in January of this year, it was reported.

The 1944 extensions involved 13 carriers and 24 routes. The longest was 1,035 miles for Northwest Airlines from Minneapolis, Minn., to New York.

According to the Civil Aeronautics Board, planes of the 18 domestic airlines in the year 1944 flew a total of 143,651,689 revenue miles. Revenue passenger-miles totaled over 2,253 million; mail pound-miles over 101,550 million; and express pound-miles over 35,247 million. The average seat occupancy on all flights was 89.45 per cent.

## I. C. C. Service Orders

By Second Revised Service Order No. 244, effective February 26 to March 1, 1946, inclusive, unless otherwise ordered, the Interstate Commerce Commission has extended to all points in the United States the applicability of rules governing grain car distribution which were in effect heretofore, under previous versions of the order that are now superseded, in the states of Minnesota, North Dakota, South Dakota, Wisconsin and Montana.

These rules, intended to bring about an "equitable distribution" of cars for loading grain, indicate how orders for such cars shall be placed and filled, the principle

being to assign the available cars to shippers at each station on any particular day in the ratio the grain reported on hand for prompt shipment by each shipper bears to the total reported by all shippers at that station. In case one or more elevators at a station are "blocked," the order requires that, to the extent available, one car be distributed to each blocked elevator consecutively in the order in which they became blocked, and that after each blocked elevator has been furnished one car any cars remaining shall be distributed to all shippers at the station in accordance with the stated ratio principle.

The order defines a blocked elevator as one containing grain to at least 90 per cent of its rated capacity.

Due to carrier disability resulting from flood conditions, the Canton & Carthage was directed by Service Order No. 284, effective February 23 to March 2, inclusive, to divert by the most available routes freight routed over its line from Cook, Miss., to River Hill.

The War Food Administration having instituted a permit system to control the shipment of hay between certain points, and the Office of Defense Transportation having requested appropriate action, the commission has issued Service Order No. 287, effective February 27 through March 9, unless otherwise ordered, prohibiting movement of cars loaded with hay from specified areas to any point in the United States, except to points within Massachusetts, Rhode Island and Connecticut, unless W. F. A. permit has been issued for such shipment. The affected origin points are in certain counties in South Dakota and Iowa and the entire state of Nebraska.

The prohibition on the movement of cars loaded with Irish potatoes from certain localities, except on W. F. A. permit, which was made effective by Service Order No. 259 and revisions thereof, has been further extended by the fourth revised order of that number, effective March 1 through April 30, unless otherwise modified, and superseding previous revisions. The permit system was thus made effective in the northern part of the lower peninsula of Michigan. It remains in operation as to shipments from Aroostook county, Maine, all of Colorado, and potato producing sections of Idaho, California, Oregon, North Dakota and Minnesota.

Upon advise from the O. D. T. that certain garbanzos, or Mexican beans, which have been held in storage by various government agencies at Galveston, Tex., and Houston, are being shipped thence to ports in Canada, the commission has prohibited the use of railroad cars for such shipments except upon I. C. C. permit. This prohibition was made effective by Service Order No. 286 from February 24 through April 29, unless otherwise ordered.

On the ground that refrigerator car interiors are being contaminated and damaged, and their unloading and reuse is being delayed, because shell eggs are being shipped in unsuitable containers and unsafely loaded, the commission has issued Service Order No. 288, effective March 15 to December 31, unless otherwise ordered, the effect of which is to require shippers of eggs to endorse shipping papers to indicate that suitable containers as prescribed in the order have been used, and to require loading of such containers to meet prescribed standards.

### House Passes Rivers Bill

The House on February 22 passed S. 35, the Senate-approved rivers and harbors bill, thereby completing legislative action on the measure which would authorize projects estimated to cost a total of $381,968,332. The bill was framed to avoid controversy and thus excludes such projects as Tennessee-Tombigbee and Beaver-Mahoning, nor was there any renewal of the drive to add the St. Lawrence seaway.

### O. D. T. Appointment

The Office of Defense Transportation has announced the appointment, "on a loan basis," of Robert L. Glenn as assistant to A. W. Motley, director of the O. D. T. Division of Transport Personnel, for the special purpose of representing the O. D. T. in conferring with the railway labor organizations and securing their cooperation "on problems related to the war effort."

Mr. Glenn has been labor consultant to the War Production Board since 1941, and retains that connection. After some 12 years in railroad service, he held various offices in the Brotherhood of Locomotive Firemen & Enginemen, and from 1937 to 1941 he was editor of the brotherhood magazine.

## Supply Trade

**M. P. Brown** has been elected vice-president in charge of sales of the **Taylor-Colquitt Company**, with headquarters at Spartanburg, S. C.

**Harry Odle**, manager of export, has been elected vice-president in charge of export for the **Pressed Steel Car Company.**

**George R. Carr**, chairman of the executive committee of the Dearborn Chemical Company, with headquarters at Chicago, has been elected chairman of the board of directors, succeeding Robert F. Carr, whose death on January 22, was reported in the *Railway Age* of January 27.

**G. L. Cotter**, western district engineer, has been appointed assistant manager of the western district of the **Westinghouse Air Brake Company** with headquarters at Chicago. Mr. Cotter was graduated from Michigan University with a degree in mechanical engineering and joined the Westinghouse Air Brake Company at Wilmerding, Pa., in 1923. After serving in the test and engineering divisions, he was appointed district engineer for the central district, Pittsburgh, Pa., and, in 1940, head of the commercial engineering division in Wilmerding. He was transferred to Chicago as western district engineer in 1943.

**Frederick P. Huston** has been given charge of the **International Nickel Company's** development and research division's railroad developments in the application of nickel alloy steels, cast irons, Monel and other nickel alloys. He has been associated with the Inco mill products division since June, 1940, devoting considerable time to the problems of steam locomotive maintenance, particularly boilers and fireboxes. Mr. Huston was graduated from the Uni-

**Frederick P. Huston**

versity of Missouri in 1912 with a degree in electrical engineering. He joined the International Nickel Company in October, 1927, as technical service engineer in the development and research division. He is a member of the American Society of Mechanical Engineers' general committee of the metals engineering division and general committee of the railroad division and is a member of the Staybolt committee of the Master Boiler Makers Association.

**Frank T. Bumbaugh**, assistant manager of sales, Alloy division, of the **Carnegie-Illinois Steel Corporation** (a subsidiary of the United States Steel Corporation) at Chicago, has been promoted to manager of sales, Alloy division, with the same headquarters. Mr. Bumbaugh was born at Monnessen, Pa., and is a graduate

**Frank T. Bumbaugh**

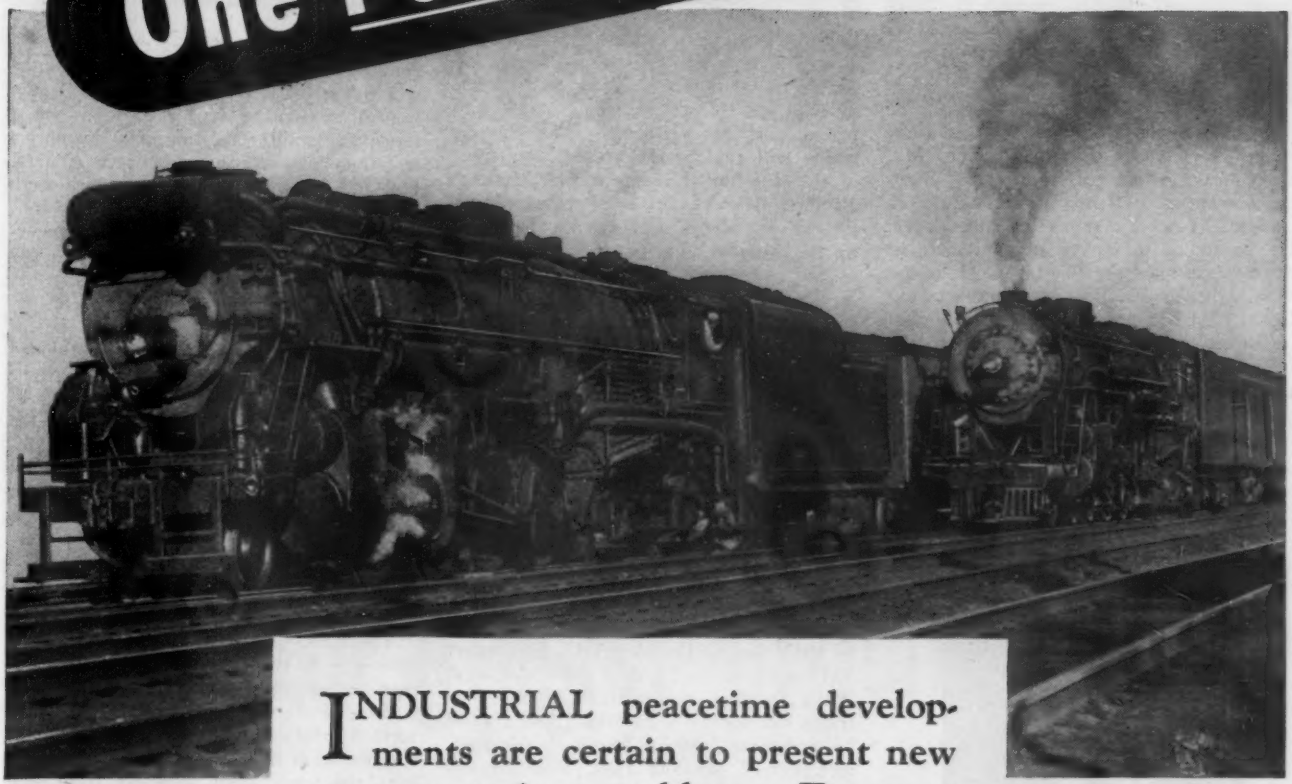
of Lehigh University. In 1926 he went with Carnegie-Illinois as a metallurgical engineer, serving in that capacity in the bar, semi-finished and alloy products division at Pittsburgh, Pa. In 1942 Mr. Bumbaugh was promoted to the position he held at the time of his new appointment.

**W. V. Walkinshaw** has been appointed manager of industrial sales of the **Westinghouse Air Brake Company**, with



*News Department continued on next left-hand page*

# One Post War Answer!



INDUSTRIAL peacetime developments are certain to present new transportation problems. To meet demands for faster deliveries, inadequate motive power will have to be replaced by the most modern types of locomotives.

Lima Super-Power steam locomotives are the answer to this problem—locomotives that have the capacity for sustained performance on the most exacting schedules.

LIMA LOCOMOTIVE WORKS

LIMA LOCOMOTIVE WORKS INCORPORATED

INCORPORATED, LIMA, OHIO

headquarters at the company's general office at Wilmerding, Pa., to succeed the late Roland G. Justus. Since joining the company in 1939, Mr. Walkinshaw has represented the company as mechanical expert in the southwestern district with headquarters at St. Louis, Mo., and later as representative, specializing in industrial sales.

## OBITUARY

**Garth G. Gilpin,** vice-president in charge of engineering of the Standard Railway Equipment Manufacturing Company, Chicago, with headquarters at Hammond, Ind., died suddenly on February 25, while vacationing at a ranch in Wickenburg, Ariz.

**Charles Ray Beall,** chief engineer of the Union Switch & Signal Co., died February 24. He was 62 years of age. Mr. Beall was graduated from Ohio State University in 1907 with the degrees of electrical engineer and mechanical engineer. He began his career as an apprentice in the engineering apprenticeship course of the Westinghouse Electric & Manufacturing Co. at East Pittsburgh, Pa. After completing the course, he was transferred to the industrial section of the engineering department of the same company where he

**Charles Ray Beall**

remained until October, 1910, when he joined the electrical engineering department of the Union Switch & Signal Co., at Swissvale, Pa. He subsequently was appointed electrical engineer in August, 1916, assistant chief engineer in November, 1923, and chief engineer on January 1, 1937. Mr. Beall was a member of the American Institute of Electrical Engineers, the American Railway Engineering Association, the Institution of Railway Signal Engineers in England, and the Signal Section of the Association of American Railroads.

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NEW HIGH IN TRAFFIC.—There was an all-time high and a 4.73 per cent increase in 1944, in railroad passenger traffic in and out of Grand Central Terminal, New York, with the new figure amounting to 62,762,860. A record also for passengers carried on any single day was chalked up December 26, when the passenger count reached 237,769. The previous record of 222,005 for a daily high had been set on December 24, 1943.

# Equipment and Supplies

## Two Roads to Spend Nine Million on New Diesel Trains

Following authorization of Federal Judge George H. Moore at St. Louis, Mo., inauguration of new light-weight trains to be pulled by powerful Diesel-electric locomotives will provide travelers with overnight service from St. Louis to many of the principal points in Texas, according to a statement of the Missouri Pacific, following completion of plans for construction of four new passenger trains at an estimated cost of $9,000,000. The modern trains will replace the present equipment of the Sunshine Specials of the Missouri Pacific and Texas & Pacific. Judge George H. Moore authorized expenditure by the Missouri Pacific of its proportion of the cost, while directors of the Texas & Pacific have already approved that company's proportion. Orders are to be placed in the near future in order to insure earliest possible delivery dependent upon allocation of now critical materials by the War Production Board.

Four entirely new trains are to be constructed. Two of them will operate daily between St. Louis and Dallas-Ft. Worth, Tex., and two daily between St. Louis and Houston-San Antonio, Tex. Corresponding types of new light-weight coaches and sleeping cars will operate to and from Memphis, Tenn., connecting at Little Rock, Ark.; also on connecting trains to and from El Dorado, Ark., Shreveport and Lake Charles, La., and Galveston, Tex. Plans for the inauguration of the new trains call for the acquisition of four 4,000 hp. and three 2,000 hp. Diesel-electric locomotives, 32 sleeping cars, two sleeper-lounges, two diners and five dinner-lounges, 21 coaches, and 8 express, baggage and mail cars.

## LOCOMOTIVES

The CENTRAL NORTHERN, COLOMBIA, which was reported in the Annual Statistical issue of the *Railway Age* as having ordered six 4-8-2 type steam freight locomotives in October, 1944, from the Baldwin Locomotive Works, has increased its order to eight locomotives of this type.

The CHICAGO, ROCK ISLAND & PACIFIC has received authorization from Federal Judge Michael L. Igoe to purchase 10 steam locomotives from the American Locomotive Company at a total cost of $2,000,000. The request was granted after attorneys for the road informed the court that 10 similar locomotives were purchased last May, but that increased traffic demands had necessitated the purchase of 10 additional units.

## FREIGHT CARS

THE GREAT NORTHERN has completed construction of 1,000 plywood box cars and plans to construct an additional 500 during the fourth quarter of this year. The necessary materials for the construction of the additional 500 cars have been ordered.

## PASSENGER CARS

The CHICAGO RAPID TRANSIT COMPANY has signed a contract with the St. Louis Car Company and the Pullman-Standard Car Manufacturing Company for the building by each firm of a two-car train of new design suitable for elevated and subway service. An expenditure of $400,000 for the trains has been authorized by the trustees of the transit company.

CENTRAL OF GEORGIA.—Under authority granted by the federal court for the southern district of Georgia on January 10, the Central of Georgia has placed orders for a streamline train, consisting of a locomotive and four cars, to operate between Atlanta, Ga., and Columbus. The cars, which were ordered from the Edward G. Budd Manufacturing Company, include one passenger-baggage car with seating capacity of 44 passengers, two coaches with seating capacity of 56 passengers each, and one observation-lounge car. They will be of stainless steel construction, air-conditioned and equipped with rotating reclining-type seats. The Diesel-electric locomotive, of 2,000-hp., has been purchased from the Electro-Motive division of the General Motors Corporation. The railroad's request for authority to purchase this equipment was reported in the *Railway Age* of January 13.

## SIGNALING

The CHESAPEAKE & OHIO has ordered five sets of intermittent inductive automatic train stop equipment from the Union Switch & Signal Company. This equipment will be installed on steam locomotives for operation in territory already equipped with the intermittent inductive train stop system.

The CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has placed orders with the Union Switch & Signal Co. covering the signal materials for the installation of centralized traffic control between Woodward, Iowa, and Bouton, five miles of single track. A Style "C" control machine, located at Madrid, Iowa, six miles east of Woodward, and outside the C. T. C. territory, will control the system. Besides this machine, the order includes the office and field coding units, Style M-22A electric switch layouts, with Style SL-6 electric switch locks, Style H-2 searchlight signals, and relays, rectifiers, resistors, housings, etc. The field installation work will be handled by the railroad company's forces.

# Construction

ATLANTIC COAST LINE.—This railroad has authorized the construction of additional yard tracks at Jesup, Ga., at estimated cost of $54,145. The company also has awarded a contract for extension of its storehouse at South Rocky Mount, N. C., at estimated



*News Department continued on next left-hand page*

# THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION

## utilizes steam with utmost efficiency

● ● ● because it has none of the design limitations of conventional types of steam distribution. Its application results in a lower steam rate per horsepower and a much higher horsepower output.

**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK • CHICAGO

*In Canada:* FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

cost of $79,500, to F. N. Thompson, Raleigh, N. C.

NEW YORK CENTRAL.—This railroad has awarded a contract for the construction of superstructure for track Nos. 1 and 2, bridge No. 298, at Hudson, N. Y., to the Fred Ballard Construction Company, Syracuse, N. Y.

ILLINOIS CENTRAL.—Division 4 of the Interstate Commerce Commission, with Commissioner Miller dissenting, has denied an application of this company and its subsidiary, the Chicago, St. Louis & New Orleans, for authority to operate and to construct, respectively, a 7.9-mile branch from a point near Central City, Ky., southeasterly into an undeveloped coal field. The Louisville & Nashville previously was authorized to build a branch into the same area, as noted in *Railway Age* of December 16, 1944, page 944, and the I. C. application was denied by the division majority, Commissioners Porter and Mahaffie, on the ground that the L. & N. will provide whatever service the new mines will require, with the result that the I. C. extension "would result in an unnecessary duplication of railroad facilities, which would not be conducive to efficient and economical operation." The new mines are closer to the existing L. & N. line than to the I. C., it observed, and it did not find the record "convincing" that the services of two roads are required for successful operation.

Commissioner Miller, on the other hand, would have permitted the I. C. to build as much of the proposed line as would be necessary to connect with the new L. & N. branch, and to operate thence over the latter, under trackage rights, to reach those mines not accessible to its own line. It is evident, he said, that the output of the new mines would provide substantial traffic for both carriers. "Granting permission to construct only to the L. & N. would prejudice the position of the I. C. in the future and would not only afford the former a decided advantage but could result in the virtual exclusion of the latter from the entire area," said the dissenting opinion.

# Financial

BALTIMORE & OHIO.—*Awards Equipment Trust.*—The Baltimore & Ohio has awarded its $4,075,000 issue of 15-year equipment trust certificates, series N, to Salomon Brothers & Hutzler and associates of New York at 100.132. The certificates were reoffered on February 23 on a 0.90 to 2.30 per cent yield basis. Previous item in *Railway Age* of February 17, page 364.

CENTRAL OF NEW JERSEY.—*Moves to Ease Tax Load.*—On February 26, trustees of the Central of New Jersey filed a petition asking the federal bankruptcy court at Newark, N. J., for authority to transfer the railroad's Pennsylvania operations and properties to a wholly-owned subsidiary, the Central of Pennsylvania. Shelton Pitney and Walter P. Gardner, trustees, declared in their petition that the move was made because New Jersey's franchise tax law, "as applied by the New Jersey state tax commissioner, operates inequitably" against the railroad.

In an explanatory statement, the financially-bankrupt Jersey Central said: "The franchise tax is a tax on net railway operating income based on the percentage of miles of track in New Jersey. Unfortunately for the Jersey Central, two-thirds of our mileage is in New Jersey, so that these taxes hit us considerably harder, correspondingly, than they hit the other major railroads, who have a great proportion of their mileage outside New Jersey.

"It is possible to interpret New Jersey's franchise tax law to remedy this inequitable situation, but we have been protesting to the state tax commissioner and the state board of tax appeals for three years without any visible result. Actually, instead of earning two-thirds of our net railway operating income, our New Jersey operations lose money while our Pennsylvania operations would make money if the State of New Jersey did not reach across the state line and confiscate it, at the financial expense of the Jersey Central, and, incidentally, at the expense of the federal government and the State of Pennsylvania.

"Ironically enough, the State of New Jersey, in computing our net railway operating income upon which our franchise taxes are based, does not permit us to deduct the rent we must pay for the properties used in our Pennsylvania operations, where all of our earnings accrue, so that in normal times it is quite questionable whether we would even have enough money left after paying our New Jersey franchise taxes to pay the rent which we must pay in order to retain the properties which earn the money going to pay New Jersey's franchise taxes."

The Jersey Central's Pennsylvania trackage and properties, known as its Lehigh & Susquehanna division, have been leased since 1871 from the Lehigh Coal & Navigation Co. As a step in obtaining L. C. & N. approval to sublease the Lehigh & Susquehanna division to the Central of Pennsylvania, the Central of New Jersey and L. C. & N. negotiated a settlement of all differences which had arisen between them over a period of years due to varying interpretations of the 1871 lease and subsequent agreements. The rental of about $2,300,000 a year remains unchanged, and the trustees of the Central of New Jersey remain liable.

The Jersey Central's trustees propose to lease to the Central of Pennsylvania the locomotives, rolling stock and similar equipment needed for operation; to sell to the C. R. P., in return for C. R. P. stock, the other materials, machinery, and similar personal property it needs; and to advance the C. R. P. $750,000 of working capital in return for C. R. P. stock. In return for the sublease of the L. & S., the Central of Pennsylvania will pay as rent to the Central of New Jersey a proportion of its actual earnings based upon the latter's investment in the leased properties.

The trustees' petition said the C. R. P. "will establish its own tariffs" and that division of revenues between the C. R. P. and the C. N. J. "will be established on the basis customary between other railroads in the same territory." The C. R. P. "will have its own officers who also may be officers" of the C. N. J. The trustees added that the separation would also enable them "to establish the extent of the net income derived from the operation of the Pennsylvania properties"; would "forestall if not eliminate expensive and protracted litigation with the State of New Jersey" on future franchise tax assessments, and would enable the trustees to determine whether the C. N. J.'s properties "in the Hudson River terminal area are being operated profitably."

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Reorganization Plan Approved.*—Federal District Judge Michael L. Igoe at Chicago has approved the plan for reorganization of the Chicago, Milwaukee, St. Paul & Pacific, and announced that within 30 days the court will appoint a committee to put the plan into effect. Judge Igoe also authorized the construction of 1,500 boxcars, which are to be built by the road at an estimated cost of $4,000,000.

MISSOURI - KANSAS - TEXAS — *Awards Equipment Trust.*—On February 23, the Missouri-Kansas-Texas awarded its $952,000 issue of equipment trust certificates, maturing semi-annually from September 1, 1945, to March 1, 1952, to Halsey, Stuart & Co., at a price of 99.65 with a 1½ per cent dividend return. The price represents an interest cost to the company of 1.5972. (Previous item in *Railway Age* of February 24, page 403.)

NEW YORK, NEW HAVEN & HARTFORD.—*Interest Payments Authorized.*—The U. S. district court at New Haven, Conn., has authorized company to make semi-annual interest payments amounting to $7,929,760, due between May 1, 1942 and April 1, 1943, on bonds secured under the first and refunding mortgage.

PENNSYLVANIA.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has authorized this company to assume liability for $6,000,000 of series P equipment trust certificates, issued in connection with the acquisition of 25 4-4-6-4 type locomotives and 500 50-ton box cars and sold at 100.1799 to Harris, Hall & Company and others on a 1.98 per cent basis. (Previous items in *Railway Age* of February 10, page 323, and February 17, page 364.) The division noted that, in the past seven years, this carrier has reduced its outstanding funded debt by 14.6 per cent, or $163,065,539.

## Average Prices Stocks & Bonds

| | Feb. 27 | Last week | Last year |
|---|---|---|---|
| Average price of 20 representative railway stocks.. | 50.68 | 51.39 | 39.60 |
| Average price of 20 representative railway bonds.. | 95.47 | 95.14 | 83.50 |

## Dividends Declared

**Beech Creek.**—guaranteed, 50¢, quarterly, payable April 2 to holders of record March 9.

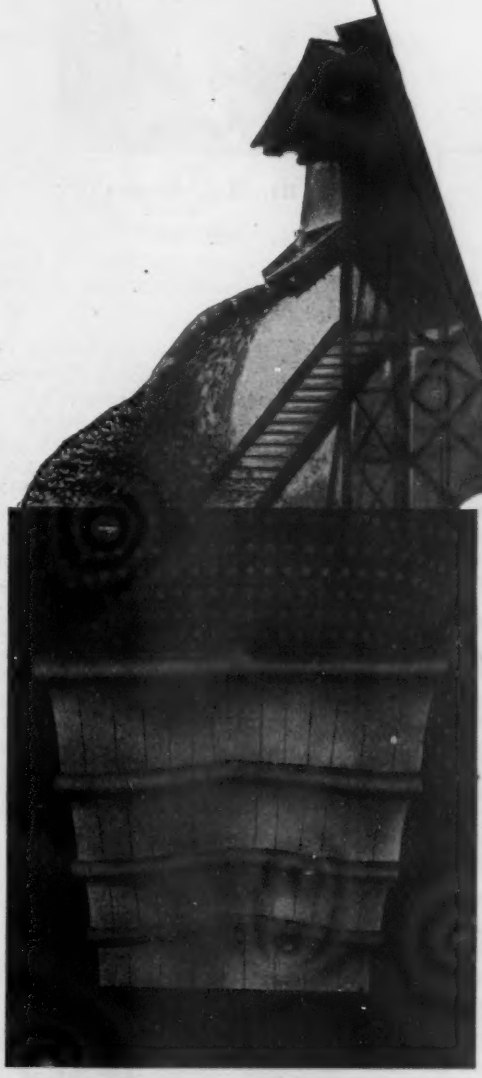
**Erie & Pittsburgh.**—guaranteed, 80¢, quarterly, payable March 10 to holders of record February 28.

**Little Miami.**—special guaranteed, 50¢, quarterly; original capital, $1.00, both payable March 10 to holders of record February 24.


*News Department continued on next left-hand page*

# Complete ARCHES

## ARE EASIER ON THE COAL PILE!



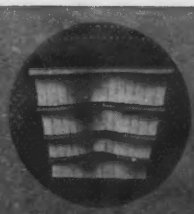
The railroads have to haul every ton of coal they burn.

With transportation operations at capacity it becomes doubly important to conserve every ton of locomotive fuel.

Experience has proved that only with a complete locomotive arch can maximum fuel economy be realized.

HARBISON-WALKER REFRACTORIES CO.

*Refractory Specialists*



AMERICAN ARCH CO.

INCORPORATED

60 EAST 42nd STREET, NEW YORK, N. Y.

*Locomotive Combustion Specialists*

# Abandonments

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Division 4 of the Interstate Commerce Commission has extended for a further period of 2 years its reservation of jurisdiction with respect to the protection of employees who may be adversely affected by this road's line abandonments authorized in the Finance Docket Nos. 13942 and 14082 proceedings. As noted in this column, these proceedings recently were reopened on petition of the Railway Labor Executives Association, which asked for such extension of jurisdiction in the event the commission did not see fit to prescribe in these cases the specific protective conditions set forth in the Burlington case, 257 I. C. C. 700. In the 13942 proceeding, a temporary extension of jurisdiction was then ordered, pending further action, while a further hearing was ordered, at a time to be set, in the 14082 proceeding, which order has now been set aside with the 2-year extension of jurisdiction.

LEHIGH VALLEY.—This company and the Lehigh Valley of New Jersey, lessor, have applied to the Interstate Commerce Commission for authority to abandon operation of, and to abandon, respectively, a 0.67-mile branch in the vicinity of Rahway Junction, N. J.

NEW YORK CENTRAL.—At this company's request, Division 4 of the Interstate Commerce Commission has dismissed without prejudice its application for authority to abandon part of a branch from Limerick, N. Y., to Cape Vincent, 15.75 miles.

NEW YORK CENTRAL.—Setting aside its order reopening Finance Docket No. 14003 proceedings for further hearing upon the matter of protection of employees who may be adversely affected by abandonment of operation by this company, and abandonment by the Michigan Central, of certain trackage as authorized therein, Division 4 of the Interstate Commerce Commission has extended for a further period of 2 years its reservation of jurisdiction as to that question. The proceeding was opened upon petition by the Railway Labor Executives Association, which sought such extension of jurisdiction in the event the commission did not elect to prescribe the specific protective conditions set forth in the Burlington case, 257 I. C. C. 700. The road's response to this petition was reported in *Railway Age* of January 27, page 253.

SOUTHERN PACIFIC.—Division 4 of the Interstate Commerce Commission has extended for a further period of 2 years its reservation of jurisdiction with respect to the protection of employees who may be affected by the Central Pacific line abandonment authorized in the Finance Docket No. 13938 proceeding.

YOSEMITE VALLEY.—In a proposed report Examiner R. Romero has recommended that the Interstate Commerce Commission authorize this road to abandon, as to interstate commerce, its entire line from Merced, Cal., to El Portal, 77.7 miles, on the ground that continued operation would be unprofitable, even though it would cause some inconvenience to shippers. Noting that employees had requested that approval of the application be conditioned on provisions for their protection such as were prescribed in the Burlington case, 257 I. C. C. 700, or that consideration be given imposition of a dismissal allowance arrangement, the examiner noted previous findings that, where abandonment of an entire line is concerned, a carrier "cannot be compelled to remain in business merely for the purpose of furnishing employment."

# Railway Officers

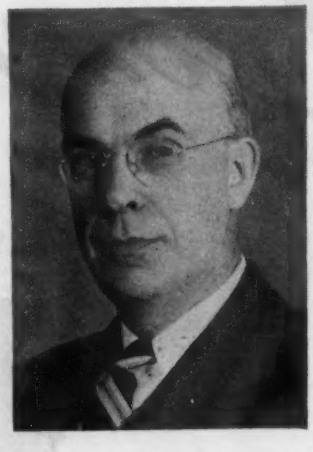
### Maybe It'll Be Printed Right This Time

In the *Railway Age* of February 10, there appeared an item reporting the appointment of "I. H. Crabhill" as general supervisor, investigation and police department, of the Southern at Washington, D. C. This was wrong, because this officer's name is spelled *Crabill*, but when we attempted to print a correction notice in the *Railway Age* of February 24, the printer changed Crabill to Grabill. The following is correct: **I. H. Crabill** has been appointed general supervisor, investigation and police department, of the Southern at Washington, D. C.

In the February 24 issue, appeared a photograph and a biographical sketch of **Edward P. Flintoft, K. C.,** who has retired as vice-president and general counsel of the Canadian Pacific at Montreal, Que., but the printer put an r in Mr. Flintoft's name and it appeared throughout the item as "Flintroft." Despite all efforts, we do make mistakes, but they seldom compound on us like this.

## EXECUTIVE

**Harold Richardson German,** whose election as vice-president in charge of finance and accounting of the Lehigh Valley at New York was announced in the *Railway Age* of February 3, was born at New Hartford, N. Y., and attended the New York University School of Commerce, Finance and Accounts. He entered railroading in April, 1907, as a stenographer of the Delaware, Lackawanna & Western at Utica, N. Y., and was appointed secretary to the vice-president at New York in 1909. In 1913 he became chief clerk to the vice-president, remaining at that post until February 5, 1917, when he joined the Lehigh Valley as chief clerk to the president. In August, 1918, he was named assistant secretary of the Lehigh Valley, in addition to his duties as chief clerk, and he served in these positions until December, 1929, when he became assistant to the president.



**Harold R. German**

In September, 1935, Mr. German was elected secretary and treasurer, the posts he held at the time of his recent election as vice-president.

**Harlan P. Ross,** whose appointment as president of the Upper Merion & Plymouth at Conshohocken, Pa., was announced in the *Railway Age* of February 24, was born at Philadelphia, Pa., on May 19, 1895, and entered railroading in the freight department of the Pennsylvania in 1913. In 1918 Mr. Ross left the Pennsylvania to become traffic manager of the Crew Levick Co. (now part of Cities Service Oil Co.) at Philadelphia, Pa., later transferring to New York as traffic manager of the Cities Service Oil Co. of Pennsylvania. In 1939 he went to Washington, D. C., as a transportation specialist of the War Department, and he served also with the Office of Defense Transportation there until 1943, when he became manager of transportation of the

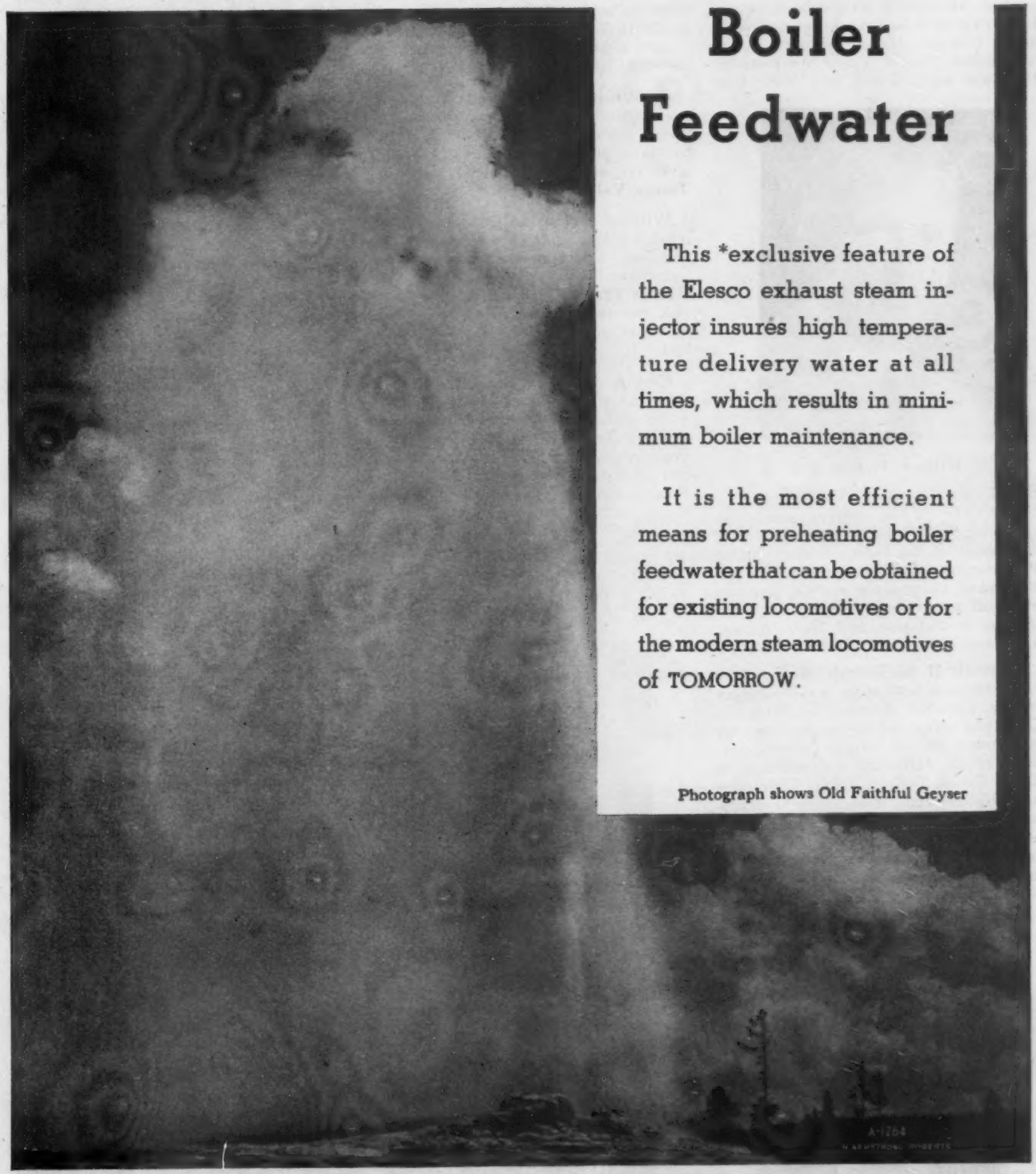
**Harlan P. Ross**

Allied Oil Corp. at Chicago. In 1944 Mr. Ross joined the Upper Merion & Plymouth as vice-president at Conshohocken, the position he held at the time of his recent appointment as president.



*News Department continued on next left-hand page*

# *Always Highly Preheated Boiler Feedwater



This *exclusive feature of the Elesco exhaust steam injector insures high temperature delivery water at all times, which results in minimum boiler maintenance.

It is the most efficient means for preheating boiler feedwater that can be obtained for existing locomotives or for the modern steam locomotives of TOMORROW.

Photograph shows Old Faithful Geyser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AMERICAN THROTTLES • STEAM DRYERS
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Montreal, Canada
THE SUPERHEATER COMPANY, LTD.

## FINANCIAL, LEGAL AND ACCOUNTING

**William F. Gleeson,** whose appointment as assistant general counsel of the Lehigh Valley at New York was announced in the *Railway Age* of February 3, was born at Brooklyn, N. Y., on November 15, 1883, and attended the New York Law

**William F. Gleeson**

School and Fordham University Law School. He entered railroad service on December 15, 1908, as a clerk in the claims department of the Lehigh Valley, and in 1911 was named claims adjuster. He became chief claim agent in 1916, and was promoted to claims attorney in 1919, remaining in that post until his recent advancement to assistant general counsel.

**Reginald H. M. Temple, K. C.,** whose appointment as head of the law department of the Canadian National at Montreal, Que., was announced in the *Railway Age* of February 24, was born at Toronto, Ont., on May 25, 1876, and was educated at Upper Canada College, Trinity University, and Osgoode Hall, from which he graduated in 1901. He entered railway service in 1906 in the construction accounting department of the Canadian Northern (now part of the Canadian National), and became

**Reginald H. M. Temple, K. C.**

claims agent in 1907. Two years later he was named assistant solicitor at Toronto, serving subsequently as general solicitor until 1919, when he was appointed general solicitor and claims agent of the Canadian National at Winnipeg, Man. In 1923 Mr. Temple was named regional counsel at Winnipeg, where he remained until 1926, when he became assistant general counsel at Montreal. He was promoted to general counsel in January, 1929, and has now been appointed head of the law department.

**Guadalupe J. Estrada,** general superintendent of express of the National Railways of Mexico at Mexico City, D. F., has been promoted to general treasurer, with the same headquarters, succeeding **Tomas Valles.**

**William McLarnon,** assistant tax commissioner, Western region, of the Canadian National, has been named deputy tax commissioner at Montreal, Que., and **George Frank Keith,** tax agent at Montreal, has been named assistant tax commissioner at Winnipeg, Man., succeeding him.

**Carl A. Phillipps,** whose appointment as assistant general counsel of the Lehigh Valley at New York was announced in the *Railway Age* of February 3, was born at Washington, D. C., on February 23, 1906, and was graduated from the School of Foreign Service, Georgetown University,

**Carl A. Phillipps**

in 1928, and the Washington College of Law in 1936. He entered railroad service on January 17, 1944, as an assistant general solicitor of the Lehigh Valley, and he remained in that position until his recent promotion to assistant general counsel at New York.

**Frank Nelson, Jr.,** has been appointed real estate agent of the Norfolk & Western at Roanoke, Va., succeeding **O. H. Beasley,** transferred.

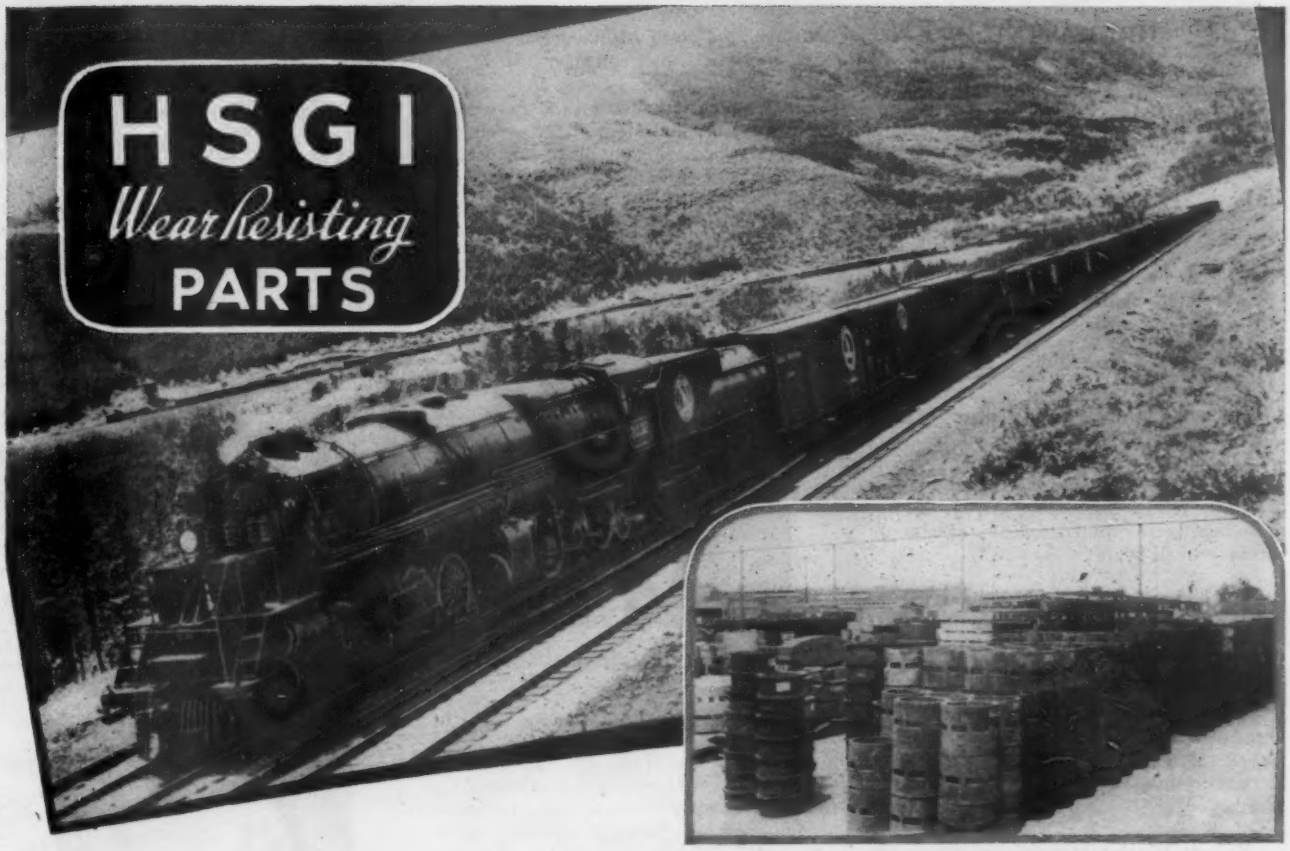
**Lewis W. Albertson,** whose promotion to assistant comptroller of the Spokane, Portland & Seattle, with headquarters at Portland, Ore., was reported in the *Railway Age* of February 17, was born at Fremont, Neb., on October 13, 1898, and entered railway service on May 17, 1915, as a section laborer on the S. P. & S., at Lamont, Wash. From October, 1917, to August, 1919, he served in the U. S. Navy, returning to the S. P. & S., in the latter year as a roadmaster's clerk at Lamont. Mr. Albertson served in a number of positions at Portland from 1919 to 1943 and in May of that year he was promoted to assistant to the comptroller, the position he held at the time of his new appointment.

**C. W. Kingsley,** whose appointment as auditor of capital expenditures of the New York Central System at New York was announced in the *Railway Age* of February 17, was born at White Plains, N. Y., on November 10, 1877, and was graduated from the West Jersey Military Academy in 1897. He entered railroad service as a clerk in the comptroller's office of the New York Central on November 1, 1898, and was promoted to head clerk, auditor's office, in 1905. In 1914 he was appointed head clerk in the general auditor's office and he was named capital expenditures accountant in 1920, the position he held at the time of his recent elevation to auditor of capital expenditures.

**Edward C. Michelsen,** whose promotion to auditor of revenue accounts of the Spokane, Portland & Seattle, with headquarters at Portland, Ore., was reported in the *Railway Age* of February 17, was born at Copenhagen, Denmark, on July 17, 1887, and entered railway service on November 5, 1905, as a messenger of the Union Pacific at Portland. In 1910 he went with the S. P. & S., as an estimate clerk of the revenue accounts division, being promoted to chief clerk two years later. During federal control of the railroads he was in charge of revenue accounts at Portland, and on February 1, 1923, he was appointed joint agent of the S. P. & S., and the Columbia & Nehalem, with headquarters at Kerry, Ore. On June 30, 1930, Mr. Michelsen returned to the S. P. & S., as assistant chief clerk of the freight accounts department at Portland. In January, 1943, he was transferred to the revenue accounts department, remaining in that capacity until his new promotion.

**R. R. Richards,** whose appointment as general auditor, New York Central System, at New York, was announced in the *Railway Age* of February 17, was born at Buchanan, Mich., on August 21, 1880, and attended the University of Michigan law school. He entered railroading July 1, 1905, as a clerk in the office of the general superintendent of motive power of the Michigan Central (an affiliate of the New York Central System) at Detroit, Mich., and transferred to the office of the auditor of disbursements in January, 1906. He became chief clerk in July, 1909, and was appointed assistant auditor of disbursements the following November. On August 17, 1912, he was promoted to auditor of disbursements, remaining at that post until June, 1918, when he was named assistant general auditor of the Michigan Central, the Toronto, Hamilton & Buffalo and the Toronto, Hamilton & Buffalo Navigation Co., (all affiliated with the New York Central). Mr. Richards was appointed assistant general auditor of the New York Central at New York in August, 1931, and on October 1, 1942, became auditor of disbursement there, the position he held at the time of his recent appointment as general auditor of the system.


*News Department continued on next left-hand page*




## WHAT HARD-WORKING LOCOMOTIVES NEED IN ORDER TO *TAKE IT*

may be found on the stock platforms of railroad shops the country over. There, in stacked ranks are the castings for bushings, packing rings, bull rings, and other vital locomotive parts awaiting the time when they will be needed. The fact that such parts usually bear the identification HSGI for HUNT-SPILLER *Air Furnace* GUN IRON indicates that most roads depend on the better heat and wear resisting qualities of this time-tested material.

**HSGI**
**Reg. U.S. Trade Mark**
Cylinder Bushings
Cylinder Packing Rings
Pistons or Piston Bull Rings
Valve Bushings
Valve Packing Rings
Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings
***Finished Parts***
Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

**HUNT-SPILLER MFG. CORPORATION**
N. C. Raymond, *President* E. J. Fuller, *Vice-Pres. & Gen. Mgr.*

*Office & Works*
383 Dorchester Ave. South Boston 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.
Export Agent for Latin America:
International Rwy. Supply Co., 30 Church Street, New York, N. Y.

# HUNT-SPILLER *Air Furnace* GUN IRON

## OPERATING

**L. Wood** has been appointed assistant superintendent of the Canadian Pacific's Laurentian division, succeeding **J. A. Stanley,** who has been granted a leave of absence.

**C. I. Morton,** assistant superintendent, Virginia division, of the Seaboard Air Line at Richmond, Va., has been transferred to the North Florida division, with headquarters at Jacksonville, Fla., and **L. E. Chester** has been named to succeed him at Richmond.

**E. J. Hardesty,** superintendent of organization on the vice-president's staff of the Railway Express Agency at Chicago, has been named superintendent of the Detroit division with headquarters at Detroit, Mich., succeeding **M. J. Kelly,** who has been granted a leave of absence because of ill health.

**J. N. Landreth,** acting trainmaster of the Atchison, Topeka & Santa Fe at Las Vegas, N. M., has been appointed acting superintendent of the Slaton division, with headquarters at Slaton, Tex. **A. R. Greer** has been appointed acting trainmaster, with headquarters at La Junta, Colo., succeeding **R. M. Champion,** who has been transferred to Las Vegas, replacing Mr. Landreth.

**Robert Waller Marye,** whose appointment as general manager of the Charleston & Western Carolina (part of the Atlantic Coast Line) at Augusta, Ga., was announced in the *Railway Age* of February 3, was born at Ashland, Va., on December 5, 1891, and received his B. A. degree from Randolph Macon College in 1912. He entered railroad service on December 5, 1912, with the Atlantic Coast Line, serving successively as rodman, inspector and transitman in the construction department. From May 25, 1915, to October 10, 1916, Mr. Marye served successively as rodman, instrumentman, and draftsman in the valuation department, becoming resident engineer in the construction department on the latter date. He served with the United States Army from August, 1917, to July, 1919, when he returned to the Atlantic Coast Line as senior assistant engineer in the construction and maintenance of way departments. After holding positions as division engineer, assistant engineer of construction, field assistant to chief engineer, and assistant to chief engineer successively from December 1, 1925, to January 1, 1935, he was appointed principal assistant engineer, remaining in that post until July, 1941, when he became assistant chief engineer. In December, 1941, he was promoted to chief engineer at Wilmington, N. C., the position he held at the time of his recent appointment as general manager of the Charleston & Western Carolina.

**C. J. Millikin,** superintendent of the Chicago-Petoskey division of the Pere Marquette at Grand Rapids, Mich., has been promoted to assistant general manager, with headquarters at Detroit, Mich. **K. T. Reed** has been appointed division superintendent at Grand Rapids, succeeding Mr. Millikin. Mr. Millikin was born at Kingston, Mich., on September 2, 1892, and entered railway service on February 3, 1909, as a station helper on the Pere Marquette at Mayville, Mich., later serving as telegraph operator and agent at various locations. On April 10, 1923, he was promoted to trainmaster at Saginaw, Mich., and on March 1, 1940, he was transferred to Grand Rapids, Mich. Mr. Millikin was advanced to assistant superintendent of the Chicago-Petoskey division, with the same headquarters, on January 1, 1941, and in June, 1942, he was promoted to superintendent of that division, the position he held at the time of his new appointment.

**C. J. Millikin**

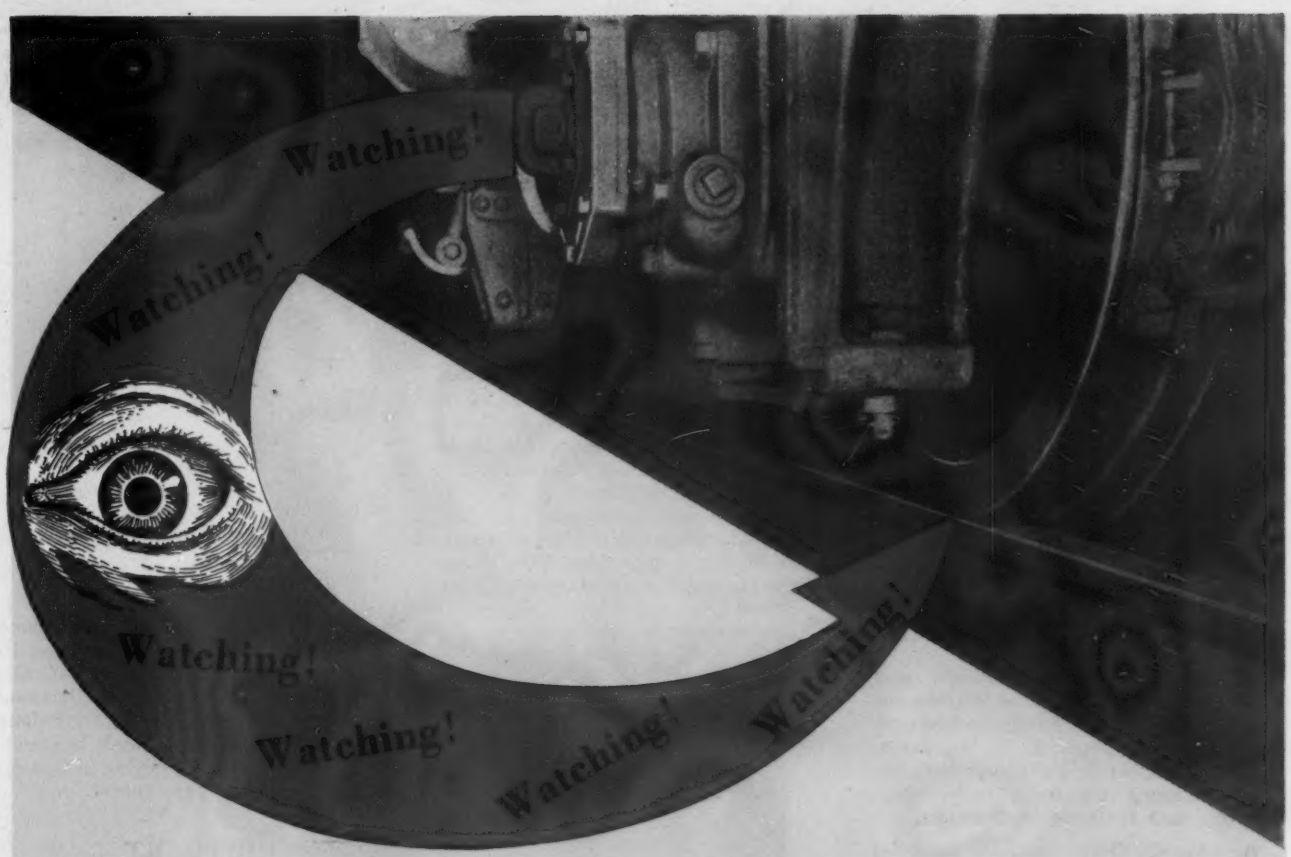
**James A. Mercer,** assistant general manager of the Northern Pacific, with headquarters at St. Paul, Minn., has retired after 52 years of service. Mr. Mercer was born at Shelbyville, Mo., on February 6, 1876, and entered railway service in March, 1893, as an agent on the Quincy, Omaha & Kansas City (controlled by the Chicago, Burlington & Quincy), at Dunlap, Mo. From June, 1896, to December, 1904, Mr. Mercer served with various roads in the West, including the Denver & Rio Grande Western, as cashier at Gunnison, Colo., and operator at Springville, Utah; the Colorado & Southern, as agent at various points in New Mexico and Colorado; the Atchison, Topeka & Santa Fe, as agent at Socorro, N. M., and Los Lumas; and the Oregon Short Line (now the Union Pacific), as operator at Blackfoot, Idaho. On October 5, 1905, he went with the Northern Pacific as an operator at Livingston, Mont., and was later appointed successively car distributor, chief yard clerk, chief dispatcher, dispatcher and train rules examiner at various points on the Northern Pacific in Montana. During the war he entered the U. S. Army as a first lieutenant in the 63rd Engineers, later being transferred and promoted to the rank of major in the Transportation Corps. In August, 1919, he returned to the Northern Pacific as a dispatcher in Montana, and from December, 1919, to August 1, 1927, he served as acting trainmaster, dispatcher and trainmaster at various points in Montana. On the latter date, Mr. Mercer was advanced to assistant superintendent at Billings, Mont., and six years later he was transferred to Fargo, N. D. On February 1, 1940, he was promoted to superintendent of the Fargo division, and in November, 1942, he was advanced to general manager of the eastern lines, with headquarters at St. Paul. He held that position while W. W. Judson, the general manager, was on leave to serve in government war service, and upon Mr. Judson's return he was appointed to the position he held at the time of his retirement.

**Melville I. Dunn, Jr.,** whose promotion to division superintendent of the Chesapeake & Ohio, with headquarters at Peru, Ind., was reported in the *Railway Age* of February 24, was born at Scottsville, Va., on October 29, 1899, and graduated from Washington and Lee University in 1923. He entered railway service with the Chesapeake & Ohio on July 1, 1916, as a rodman on valuation survey work, and on December 1, 1918, he was promoted to instrumentman, which position he held until September 1, 1919, when he obtained a leave of absence to attend college. On June 15, 1923, he returned to the C. & O. as an instrumentman in the construction department at Huntington, W. Va., and on October 1 of that year he was promoted to assistant engineer in the maintenance of way department on the Clifton Forge division, at Clifton Forge, Va. On October 1, 1924, he was promoted to assistant division engineer on the Richmond division, at Richmond, Va., and on July 15, 1925, he was transferred to Huntington. In 1929 Mr. Dunn was advanced to division engineer, with the same headquarters, and in 1936, he was promoted to trainmaster, with headquarters at Handley, W. Va., being transferred in June, 1940, to Peru, his headquarters at the time of his new appointment.

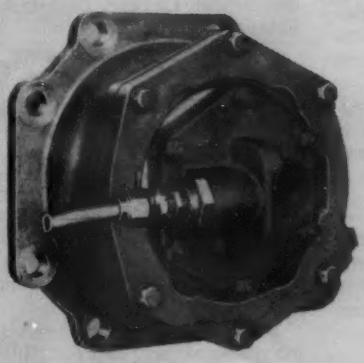
**Melville I. Dunn, Jr.**

**Pablo M. Hernandez,** assistant general manager of the National Railways of Mexico at Mexico City, D. F., has been promoted to general manager, with the same headquarters. **Conrado C. Rochin** and **Manuel M. Mayagoitia** have been appointed assistant general managers, with headquarters at Mexico City. The former will be in charge of transportation, maintenance of way, motive power, car service, personnel, and the express and telegraphic departments, and Mr. Mayagoitia will take

*News Department continued on next left-hand page*




# On Guard



Softens the Brake
When Wheel Slip Impends

THE "AP" Decelostat keeps tab of the wheel whether moving forward or back. It rolls with the wheel and observes the slightest hesitation in wheel rotation when brakes are applied.

It maintains constant check on the rate of slow-down and is poised to act if this rate reaches a set limit.

And when this limit develops the Decelostat flashes the impulse to the brake cylinders—*softens the brake momentarily*, permitting the offending wheel to get into step with the others in the train.

**WESTINGHOUSE AIR BRAKE CO.**

**WILMERDING, PENNSYLVANIA**

control of the medical, statistical, police, chemical and reclamation departments and train auditors.

## PURCHASES AND STORES

**Juan Velasco** has been appointed purchasing agent of the National Railways of Mexico, with headquarters at Mexico City, D. F., succeeding **Luis Coutollenc.**

## TRAFFIC

**H. E. Gillett,** city ticket agent of the Southern Pacific at San Antonio, Tex., has been promoted to district passenger agent, with the same headquarters.

**V. M. Weger,** general dairy agent of the Chicago & North Western at Chicago, has been promoted to assistant general freight agent, with the same headquarters.

**William D. Hansen,** freight traffic representative of the Chicago, South Shore & South Bend at Chicago, has been promoted to general agent, with headquarters at New York.

**Byron G. Ryan,** traveling freight agent of the New York Central at Washington, D. C., has been named foreign freight traffic representative there. **L. P. Huppman,** city freight agent at Baltimore, Md., has been appointed foreign freight traffic representative with the same headquarters.

**Amador C. Ortiz** has been appointed acting general superintendent of express of the National Railways of Mexico, with headquarters at Mexico City, D. F., succeeding to the duties of **Guadalupe J. Estrada,** whose promotion to general treasurer is reported elsewhere in these columns.

**J. M. Jensen,** commercial agent of the Denver & Rio Grande Western at Sacramento, Cal., has been promoted to general agent, with headquarters at Pueblo, Colo., succeeding **J. B. Latimer,** who has been transferred to Dallas, Tex., replacing **C. N. Gray,** who has retired because of ill health.

**Walter M. Randall,** district freight agent of the Baltimore & Ohio at Cincinnati, Ohio, has been appointed general freight agent at New York, succeeding Harry Atkinson, whose promotion to assistant freight traffic manager at New York was announced in the *Railway Age* of November 11.

**C. G. Labus,** industrial agent of the Lehigh Valley at New York, has been promoted to assistant to the freight traffic manager with the same headquarters, and **John E. Haas,** general agent at Albany, N. Y., has been named to succeed him. **Cyril J. Kaemmerlen,** division passenger agent at Newark, N. J., has been named district freight agent at Philadelphia, Pa., replacing **A. K. Thomas,** who has been appointed export and import agent, foreign freight department, at New York. **James R. Buckley,** passenger service representative at New York, has become division passenger agent at Newark succeeding Mr. Kaemmerlen, and **Fred Churnside,** commercial agent at Pittsburgh, Pa., has been advanced to general agent at Albany succeeding Mr. Haas.

## ENGINEERING & SIGNALING

**James A. Parkinson,** assistant signal engineer system, of the Atchison, Topeka & Santa Fe, with headquarters in Topeka, Kan., has been appointed superintendent of communications, with headquarters in Chicago, succeeding **T. P. Brewster,** who died on January 7, 1945. Mr. Parkinson was born on April 22, 1900, in Topeka, Kan., and entered the employ of the Santa Fe as a laborer in a signal construction crew in January, 1919. In 1922, he was promoted to draftsman, and in the same year he resigned to attend Kansas University. During his college course he worked during the summer months in the office of the signal engineer system. After graduation from college, with the degree of Bachelor of Science in Electrical Engineering, he was assigned as draftsman in the office of the signal engineer system. In May, 1926, he was promoted to chief draftsman in that office, and in October, 1936, he was promoted to assistant signal engineer, East-

**James A. Parkinson**

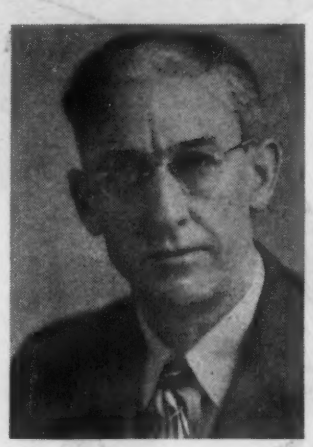
ern lines, with headquarters in Topeka. In July, 1940, Mr. Parkinson was promoted to signal engineer, Western lines, with headquarters in Amarillo, Tex., and in July, 1942, was promoted to assistant signal engineer system, with headquarters in Topeka, this being the position he held until his recent appointment to superintendent of communications.

**H. J. Bogardus,** assistant engineer maintenance of way, of the Pere Marquette at Saginaw, Mich., has been promoted to assistant chief engineer, with headquarters at Detroit, Mich.

**Harold S. Ashley,** division engineer, Terminal division, of the Boston & Maine, with headquarters at Boston, Mass., has been appointed engineer of track there, succeeding **Guy H. Watson,** who has retired after more than 42 years of service. **Raymond H. Mitchell,** assistant division engineer, Portland division, at Dover, N. H., has been named division engineer at Boston replacing Mr. Ashley.

## MECHANICAL

**George H. Pollard,** whose promotion to mechanical engineer of the Missouri Pacific, with headquarters at Palestine, Tex., was reported in the *Railway Age* of January 20, was born at Moberly, Mo., on July 5, 1894, and received his higher education at Washington University, and Jefferson College, and also attended the North



**George H. Pollard**

St. Louis Drafting and Engineering School. He entered railway service on June 16, 1920, as a general draftsman in the office of the mechanical engineer of the Missouri Pacific at St. Louis. Later Mr. Pollard served as shop draftsman, with headquarters at Sedalia, Mo., remaining in that capacity until his new appointment.

## OBITUARY

**A. T. Pfeiffer,** road foreman of engines, New York Central, at Syracuse, N. Y., died on February 20.

**Carleton S. Hadley,** general counsel of the Wabash, with headquarters at St. Louis, Mo., died in a hospital in that city on February 16.

**John Dickie,** treasurer of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, died in that city on February 24.

**James D. Fitzgerald,** who retired in 1944 as supervisor of mail and express traffic of the Pennsylvania, with headquarters at Chicago, died at Rochester, Minn., on February 20.

**Edward L. Gaffney,** who retired in 1937 after serving for many years as auditor of passenger accounts of the Wabash, with headquarters at St. Louis, Mo., died in a hospital in that city on February 10.

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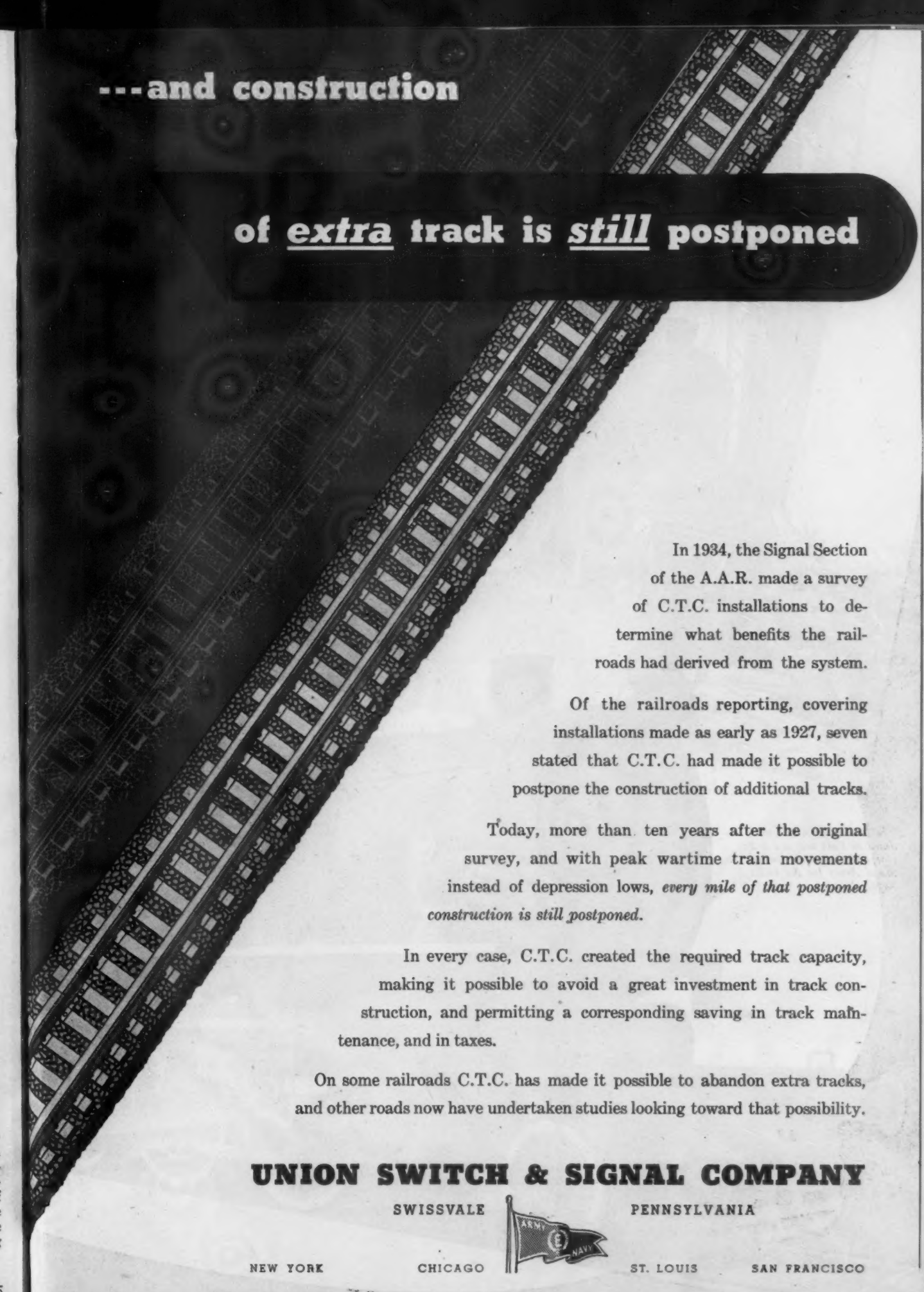
TOADS IN AIR EXPRESS.—A new high in international air express shipments was reached in 1944, it has been reported by the Air Express division of Railway Express Agency, marking an increase of 43.4 per cent over 1943, and placing the total number of shipments handled at 173,200. Express charges on these shipments amounted to $900,000, as compared with $610,000 in 1943.

Throughout the year, the release explains, there was maintained a "better than two-to-one balance of outgoing over incoming traffic," adding that "toads, imported to fend off a parasitic invasion of Florida's cane sugar industry, featured the flow of incoming traffic, while machine parts and drugs were major items among the air exports."



# ---and construction

# of *extra* track is *still* postponed

In 1934, the Signal Section of the A.A.R. made a survey of C.T.C. installations to determine what benefits the railroads had derived from the system.

Of the railroads reporting, covering installations made as early as 1927, seven stated that C.T.C. had made it possible to postpone the construction of additional tracks.

Today, more than ten years after the original survey, and with peak wartime train movements instead of depression lows, *every mile of that postponed construction is still postponed.*

In every case, C.T.C. created the required track capacity, making it possible to avoid a great investment in track construction, and permitting a corresponding saving in track maintenance, and in taxes.

On some railroads C.T.C. has made it possible to abandon extra tracks, and other roads now have undertaken studies looking toward that possibility.

**UNION SWITCH & SIGNAL COMPANY**

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

*200th locomotive pro-
in 1944 was a 2-8-2
delivered to the United
es Army for the India
ply Mission.*

# BALDWIN
# STEAM LOCOMOTIVES IN 1944

## One Locomotive Every 7 3/10 Hours

During the year 1944, Baldwin produced a total of 1200 steam locomotives; which gives the astonishing average of a locomotive every 7 3/10 hours. In addition, Baldwin built hundreds of diesel-electric locomotives in 1944.

Many hundreds of the 1944 locomotives were built for the United States Army and are serving at battle-fronts throughout the world. Others are keeping traffic rolling on our railroads here at home.

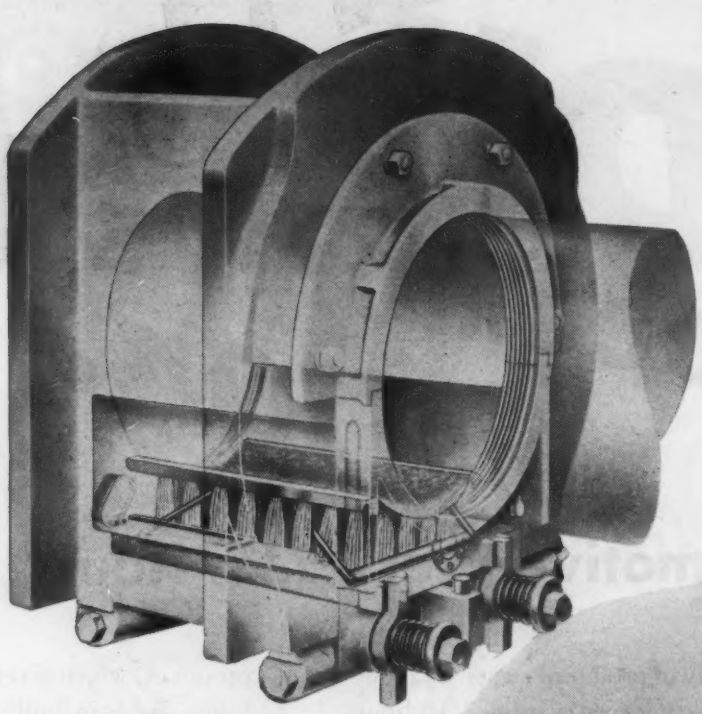
Regardless of their type or ultimate destination, all 1200 of these Baldwin locomotives are playing their part in the task of defeating our enemies. The Baldwin Locomotive Works, Locomotive and Ordnance Division, Philadelphia, Pa. Offices: Philadelphia, New York, Chicago, Washington, Boston, Cleveland, Detroit, St. Louis, San Francisco, Houston, Pittsburgh.

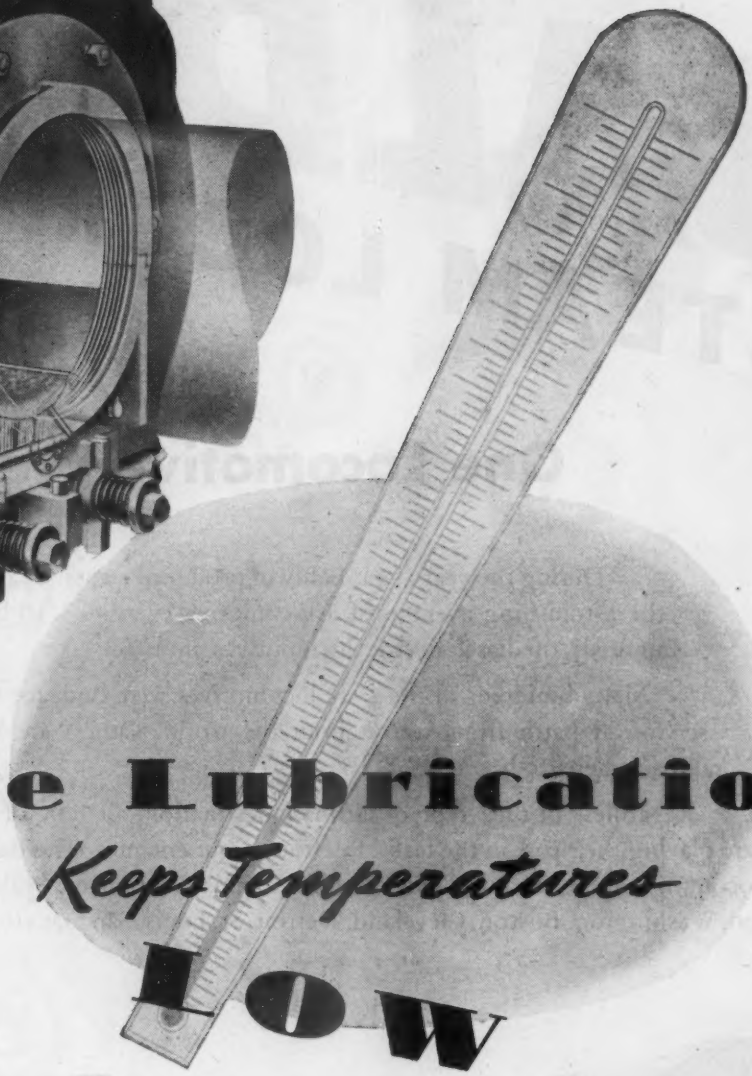
BLW THE BALDWIN GROUP

BALDWIN SERVES WHICH

# BALDWIN

LOCOMOTIVES

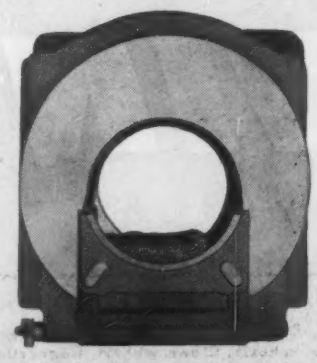




# Positive Lubrication *Keeps Temperatures* Low

**Magnus Locomotive Journal Oil Lubricator Utilizes All the Advantages of Oil Lubrication**

**Positive lubrication is assured with Magnus Oil Lubricators. The compact lubricating pad is held against the journal and is fed by absorbent wicking which acts as a filter. Capillary action causes oil to climb the wicking, but dirt and abrasives are left in the bottom of the box. There is no loose packing to cause waste grabs or lint wipers.**



Magnus Satco-Lined Lateral Hub Facing for engine-truck, trailer and driving boxes.

SATCO Bearing Metal

MODERN HEAVY DUTY BEARINGS

MAGNUS METAL CORPORATION
CHICAGO NEW YORK

# *In 1795*

## When *Washington* was president "Standard Steel" forged the first link in a chain of service 150 years long

There were only 15 states then and the fourth congress was sitting, back midway in Washington's second term. But it's amazing the many things that happened which directly affect America's life today.

General Wayne concluded a treaty with twelve Indian tribes, obtaining 25,000 square miles of land that later became southeastern Indiana and southern Ohio. Connecticut sold the balance of the Western Reserve, which made up still more of what was to be the Buckeye State. A day of Thanksgiving was appointed by statute, and a new naturalization act was passed, requiring five years' residence, and the renunciation of all allegiance to foreign sovereigns, and all claim to titles of nobility. Then, too, the infant republic got another infant industry . . . *Freedom Forge.*

Today, a direct descendent of Freedom Forge—Baldwin's Burnham plant, still in the same location after 150 years—still serves America with castings and forgings that reflect a century and a half of continuous progress and pioneering. In every generation, "Standardize on Standard" has been a dependable short-cut to assured satisfaction. The Baldwin Locomotive Works, Standard Steel Works Division, Burnham, Pennsylvania, U. S. A. Offices: Philadelphia, New York, Chicago, Washington, Boston, Cleveland, St. Louis, San Francisco, Houston, Pittsburgh, Detroit.

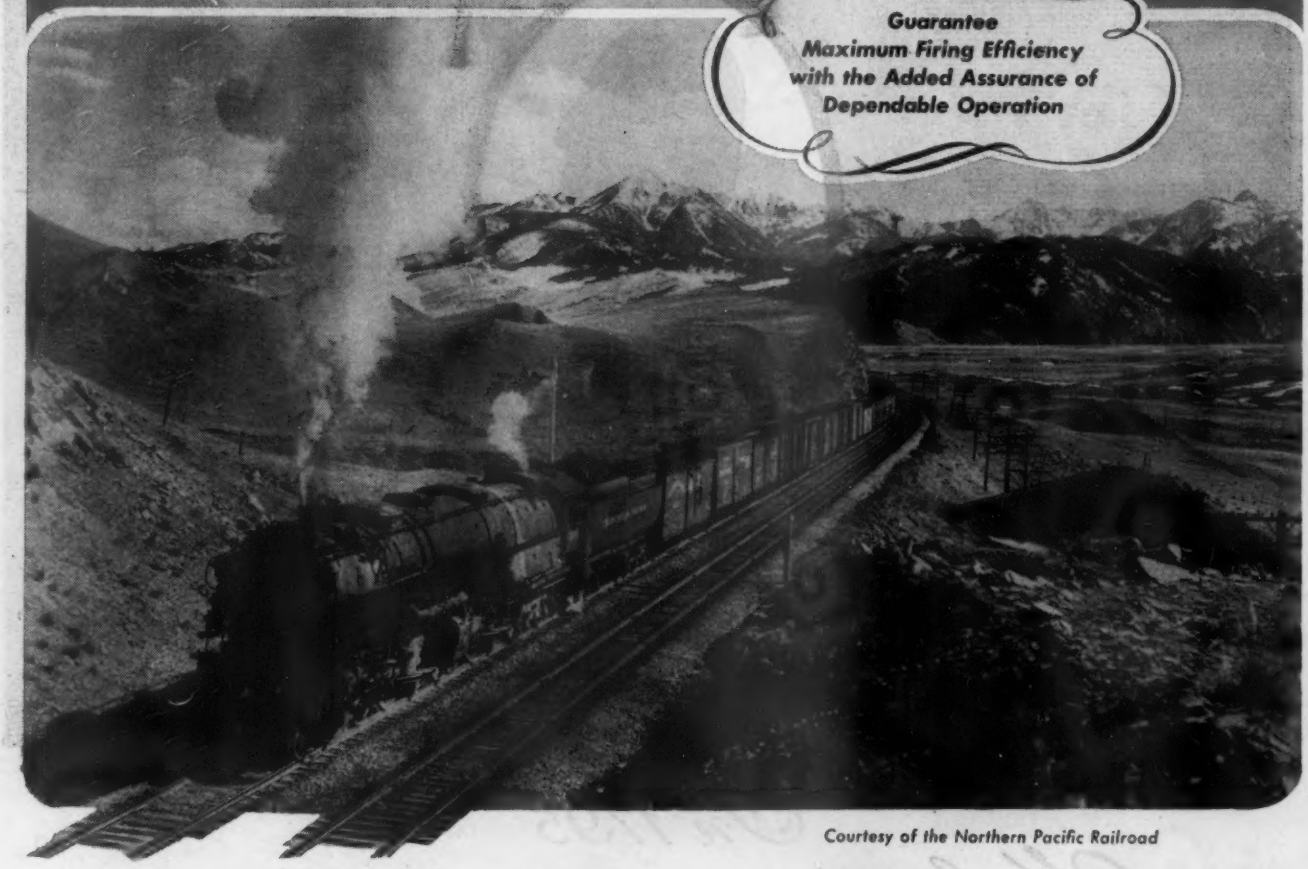
BLW THE BALDWIN GROUP

**BALDWIN** ARMY NAVY

**STEEL FORGINGS & CASTINGS**

# STANDARD STOKERS *for the Long Pull*

**Guarantee**
**Maximum Firing Efficiency**
**with the Added Assurance of**
**Dependable Operation**



*Courtesy of the Northern Pacific Railroad*

***35,000 to 45,000*** **pounds of coal per hour must be delivered to the firebox of the giant high speed freight locomotive shown above if it is to make "the long pull". On this as well as on many other types of modern coal burning locomotives Standard Stokers are contributing to the amazing tonnage records being established today under wartime operating conditions • Standard Stokers are firing the Northern Pacific's fleet of 4-6-6-4 locomotives which have unusually large fireboxes with a grate area in excess of 150 square feet. Maximum coal requirements of 35,000 to 45,000 pounds of coal per hour are met without difficulty. This achievement in stoker firing assures adequate power for producing sustained tractive effort resulting in greater hauling capacity with increased speed.**

**THE STANDARD STOKER COMPANY, INC**
NEW YORK • CHICAGO • ERIE • MONTREAL

# Cure for "that tired feeling"

Steel castings are pretty rugged. They can stand a lot of pulling and hauling, shaking and pounding.

But sometimes they get tired, just like people do, after taking a long series of hard knocks. Prize fighters call this getting "punch drunk". Metallurgists call it metal fatigue.

Whatever its name, this tired feeling calls for preventive medicine—something that steel castings research has learned how to provide.

By selecting in advance the right alloy of steel, the founder can supply you with almost any combination of mechanical properties you'd like to have. And by heat treating, these properties can be modified and enhanced to suit the needs of the job.

You can get resistance to metal fatigue, or resistance to corrosion, or extremes of heat and cold. You can get extra tensile strength, or protection against shock and vibration.

No other material can provide such a wide range of the mechanical properties as make things made of steel castings so useful to industry and so durable.

When you get around to planning for your future production, your steel foundry stands ready to help you.

Published by the Steel Founders' Society of America, to tell you about its organized Research Program.

MODERNIZE AND IMPROVE YOUR PRODUCT WITH

# STEEL CASTINGS

# Down To the Sea in Timber

Timber Structures' field of service to the construction man, to the architect, to the engineer, is great.

Basically, our business is the fabrication of timber into structural form for various building uses. In the marine field, for example, this might mean roof trusses for freight and passenger stations, engine houses, warehouses.

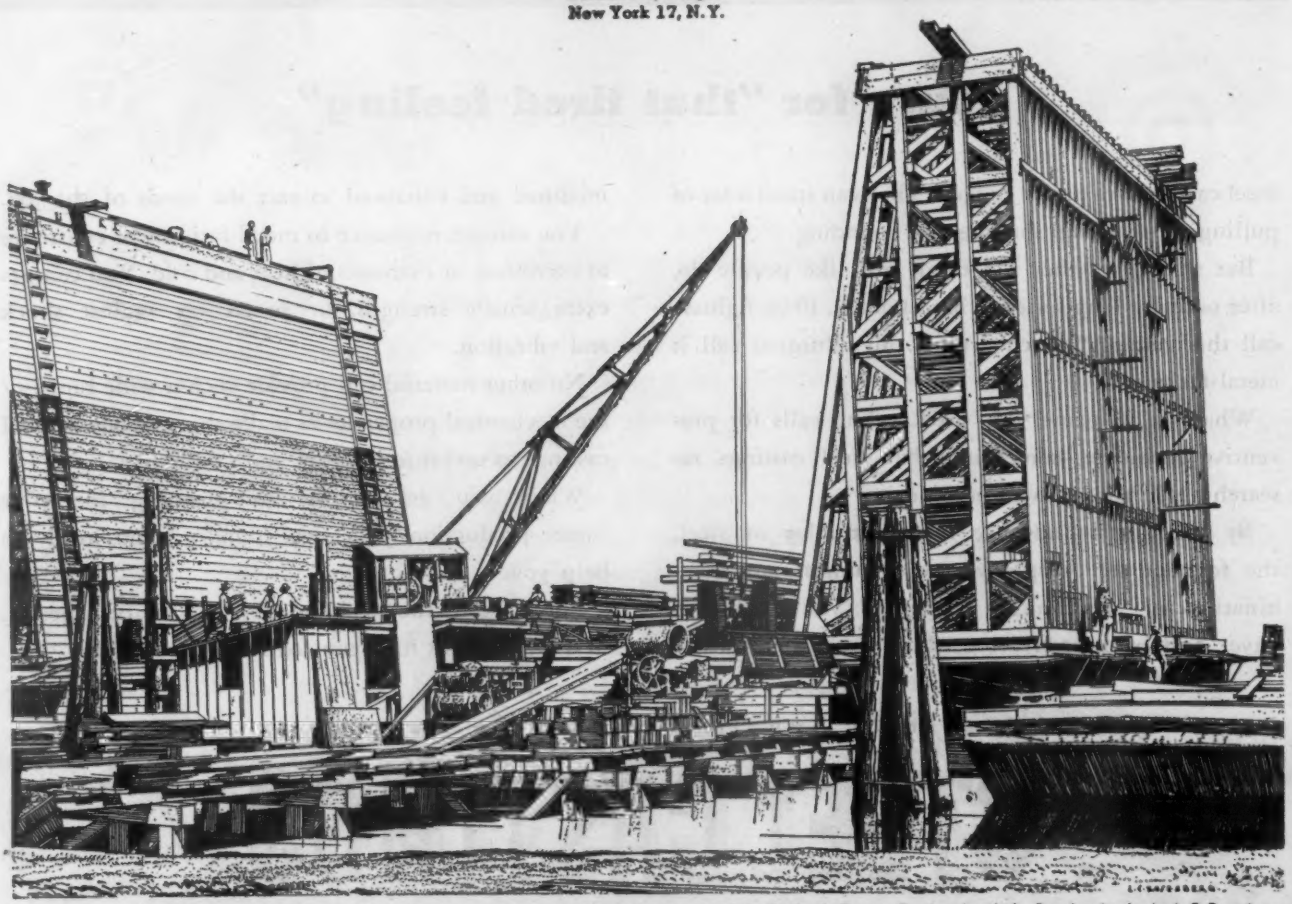
For any industry Timber Structures' service in fabricated trusses includes design, assembly, shipment, erection (if desired). Our facilities include fireproofing and preservative treatments.

Inquiries on present or future construction in wood and allied structural materials are welcomed. Our experience and performance on varied building assignments is a matter of record. If you would like a pictorial booklet of jobs we have done, simply ask your nearest Timber Structures office.

TIMBER STRUCTURES INCORPORATED
RAIFORD MAYER

...BUILD WITH TIMBER STRUCTURES

Portland 8, Oregon
New York 17, N.Y.



DRY DOCK. Heavy timber items fabricated by Timber Structures, Inc. were used to erect pontoons of the Portland, Oregon floating dry dock. Pen drawing by Louis C. Rosenberg, internationally known etcher and renderer. A copy suitable for framing will be mailed free to architects and engineers on professional letterhead request.

# PORUS-KROME

## *Long Life Liners for Streamliners*

Sleek, powerful and modern though the Streamliners are, there is a spot that is vulnerable to wear . . . the cylinder liners and rings of their rugged Diesel engines. Or rather, the liners are vulnerable to wear *unless they are long life liners treated with* PORUS-KROME, which reduces wear and multiplies the life of the liners and rings.

That is why one large manufacturer of Diesel engines for Streamliners and other applications has standardized on PORUS-KROME liners for all engines coming off the production line. And that is why other engine manufacturers are planning to use PORUS-KROME in their engines as soon as they can again build engines for civilian use. It enables them to offer their customers engines of greater reliability and longer life . . . and lower maintenance costs.

And what is PORUS-KROME?

PORUS-KROME is hard, pure chromium which is applied to cylinder bores by the patented Van der Horst process. It has tiny pores and channels in its surface which serve as reservoirs for lubricating oil, feeding it back to the surface as needed. It reduces corrosion and wear and multiplies cylinder life 4 to 20 times, and ring life 3 to 4 times.

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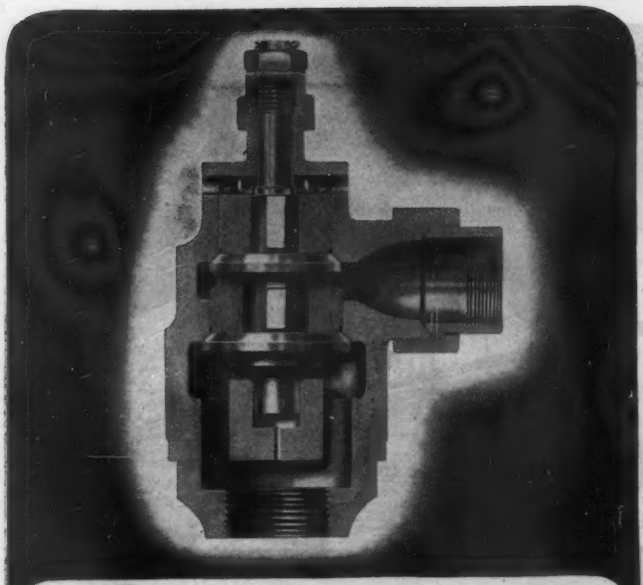

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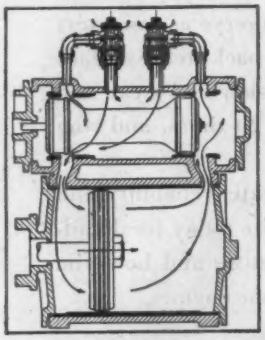

Fig. 1. Travel of cylinder contents at initial movement of piston while drifting. Reverse lever set at 50% cut-off. Main piston valve and both by-pass valves open.

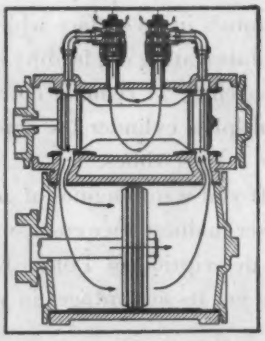

Fig. 2. Travel of cylinder contents with piston at 50% of stroke. Reverse lever set at 50% cut-off. Piston valve in lap position over cylinder ports and both by-pass valves open.

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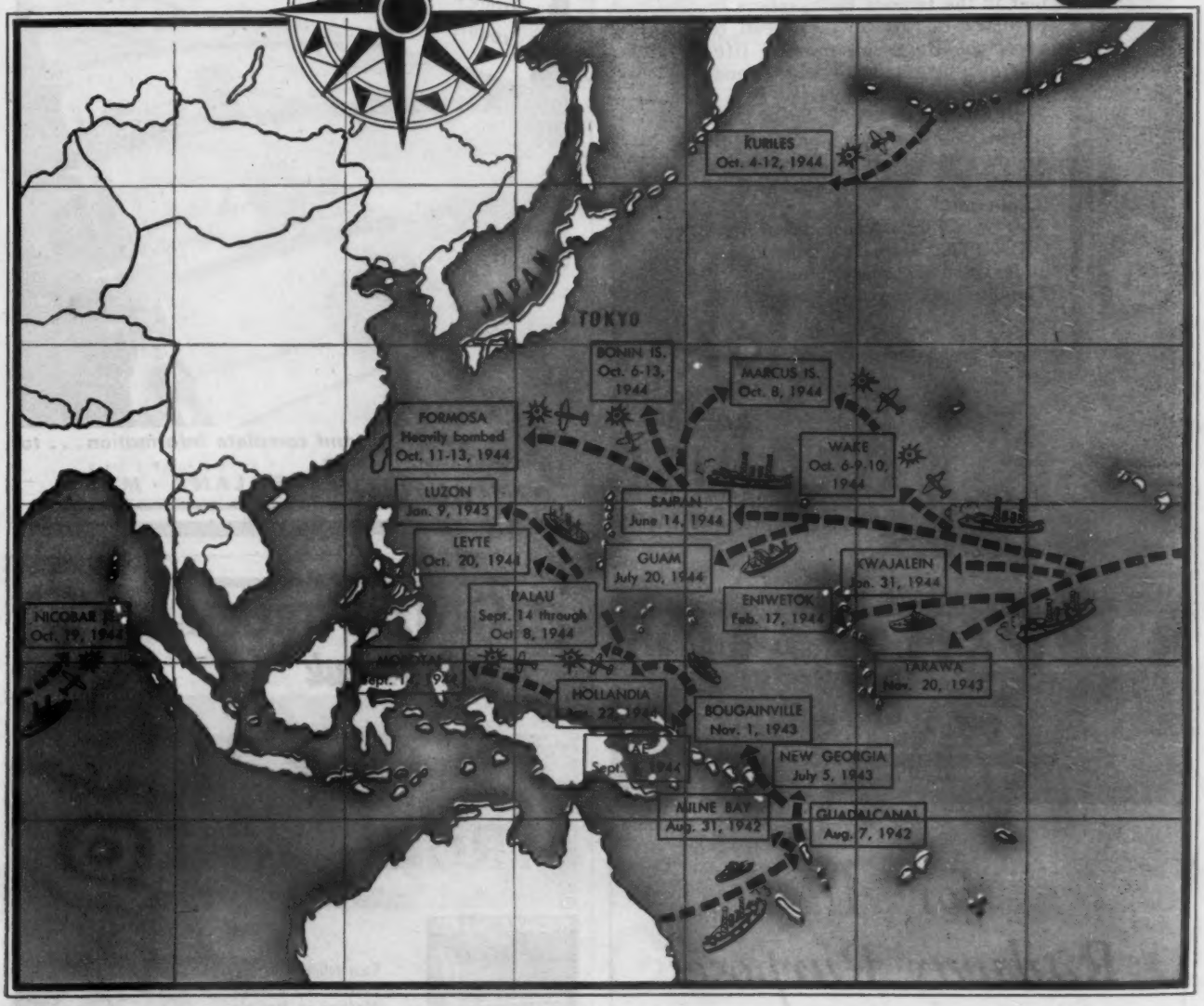


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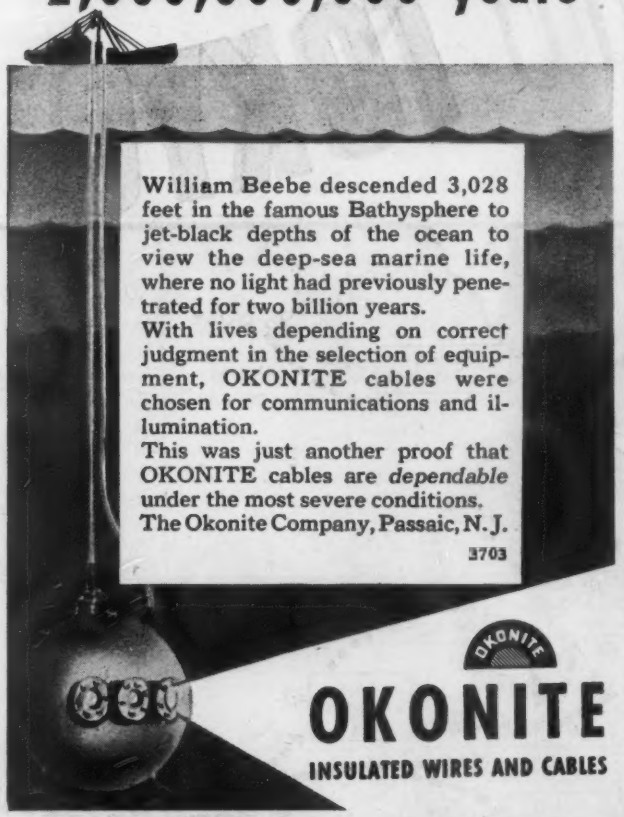

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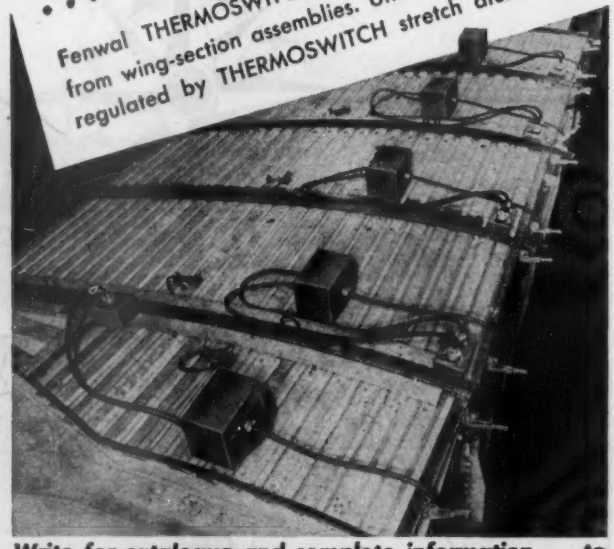

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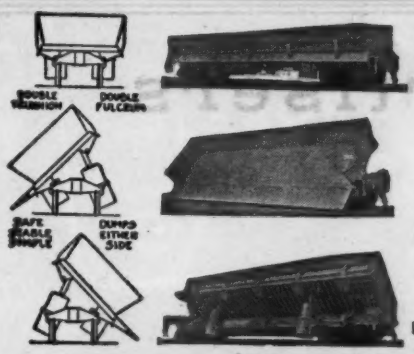


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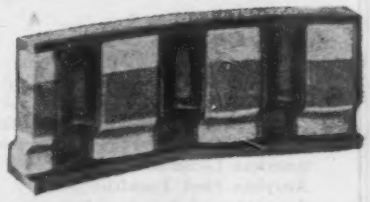

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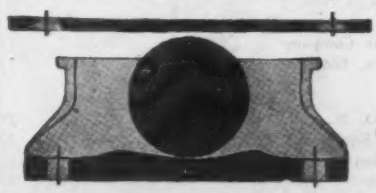

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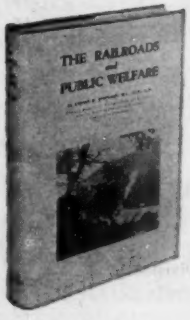


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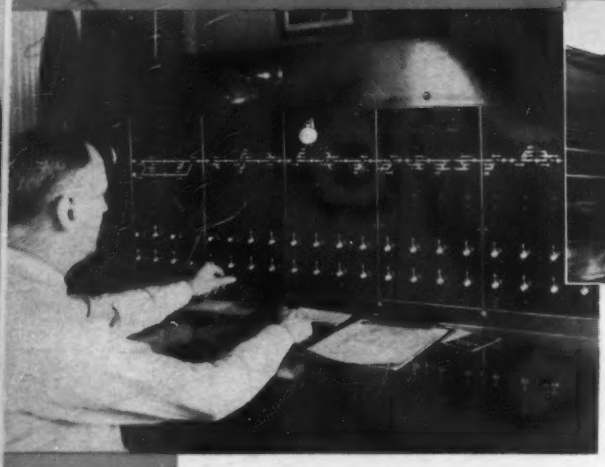

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